

### Question 1

Which structure in the figure is filled with follicular fluid?

- H
- G
- E
- D
- B

Answer: <https://biology-forums.com/index.php?topic=1904296>

### Question 2

The patellar reflex is an example of an autonomic reflex.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900876>

### Question 3

The same number of cranial nerves are involved in transmitting sensations in both olfaction and gustation.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900940>

### Question 4

With advancing age, the dermis thickens and the formation of surface cells of the epidermis speeds up.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900541>

### Question 5

Which structure labeled in the diagram contains the receptors that bind the inhaled chemicals?

- H
- G
- I
- E
- L

Answer: <https://biology-forums.com/index.php?topic=1904076>

### Question 6

Which of the following disorders can occur in the organ labeled B?

- Appendicitis
- mumps
- pancreatitis
- hepatitis
- peptic ulcers

Answer: <https://biology-forums.com/index.php?topic=1904255>

### Question 7

\_\_\_\_\_ is a muscle that stabilizes the proximal end of a limb, while other muscles produce movement at the distal end of the same limb.

- prime mover (agonist)
- antagonist
- synergist
- fixator
- flexor

Answer: <https://biology-forums.com/index.php?topic=1900738>

### Question 8

Where in the diagram is the endosteum located?

- B
- C

- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1902967>

### Question 9

Identify the stalk-like structure labeled A in the diagram.

- hypothalamus
- anterior pituitary
- posterior pituitary
- infundibulum
- hypophyseal fossa

Answer: <https://biology-forums.com/index.php?topic=1904091>

### Question 10

The muscles of the perineum are superior to the muscles of the pelvic floor.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900846>

### Question 11

Which of the following is the correct sequence of events in phagocytosis shown in the figure?

- pseudopods surround particle > phagosome formed > fusion of lysosome and phagosome > digestion by lysosomal enzymes > residual body formed
- phagosome formed > pseudopods surround particle > fusion of lysosome and phagosome > digestion by lysosomal enzymes > residual body formed
- phagosome formed > pseudopods surround particle > fusion of lysosome and phagosome > residual body formed > digestion by lysosomal enzymes
- residual body formed > phagosome formed > pseudopods surround particle > fusion of lysosome and phagosome > digestion by lysosomal enzymes
- fusion of lysosome and phagosome > residual body formed > phagosome formed > pseudopods surround particle > digestion by lysosomal enzymes

Answer: <https://biology-forums.com/index.php?topic=1902871>

### Question 12

Where is the levator palpebrae superioris?

- B
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1903414>

### Question 13

The bodies of adjacent vertebrae are connected by pads of fibrocartilage (the intervertebral discs). The articulations between adjacent vertebrae are called \_\_\_\_\_.

- a) synchondroses
- b) symphyses
- c) gomphoses
- d) synovial joints
- e) syndesmoses

Answer: <https://biology-forums.com/index.php?topic=1900663>

### Question 14

Delivery of maternal blood to the embryo requires development of sinusoids.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901242>

### Question 15

The pancreatic acini are small clusters of glandular epithelial cells which comprise the exocrine portion of the pancreas.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901145>

### Question 16

Which of the following muscles that assist with mastication is not innervated by the mandibular division of the trigeminal (V) nerve?

- a) buccinator
- b) masseter
- c) temporalis
- d) medial pterygoid
- e) lateral pterygoid

Answer: <https://biology-forums.com/index.php?topic=1900751>

### Question 17

The sella turcica is a feature of which bone? It also has a depression that provides a bony enclosure for the pituitary gland.

- a) ethmoid bone
- b) sphenoid bone
- c) frontal bone
- d) vomer
- e) maxillae

Answer: <https://biology-forums.com/index.php?topic=1900593>

### Question 18

Which of the following could contribute to a decreased range of motion if a person wore a cast for several weeks which prohibited movement at a particular joint, such as the elbow?

- a) a decrease in synovial fluid thus reducing the lubrication of the joint
- b) muscle atrophy thus resulting in weakness in the muscles that would move and stabilize the joint
- c) reduced flexibility of the tendons and ligaments at the joint
- d) all of these could be contributing factors
- e) none of these are factors that would limit range of motion

Answer: <https://biology-forums.com/index.php?topic=1900677>

### Question 19

Which of the labeled structures in the diagram of the trigeminothalamic pathway is the trigeminothalamic tract?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903996>

### Question 20

Which of the labeled structures in the diagram of the trigeminothalamic pathway is the trigeminal ganglion?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904038>

### Question 21

Which blood vessel shown in the figure carries oxygenated blood to the lower thoracic cavity and the abdominal cavity of the body?

- A
- B
- E
- F
- H

Answer: <https://biology-forums.com/index.php?topic=1904136>

### Question 22

Decreased surfactant will affect alveolar surface tension to cause decreased pulmonary ventilation, but will have no effect on lung compliance.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901109>

### Question 23

The structures of the head and neck develop from the

- a) myotomes, dermatomes, and sclerotomes.
- b) otic and lens placodes.
- c) pharyngeal arches, clefts, and pouches.
- d) oropharyngeal membrane.
- e) notochord.

Answer: <https://biology-forums.com/index.php?topic=1901250>

### Question 24

Which of the following is not part of the internal defense system?

- a) macrophages
- b) erythrocytes
- c) interferons
- d) transferrins
- e) stellate reticuloendothelial cells

Answer: <https://biology-forums.com/index.php?topic=1901079>

### Question 25

The coracoid process of the scapula does not articulate with any bone, but it is an attachment site for tendons and ligaments.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900644>

### Question 26

This type of epithelium has elastic properties. It is able to stretch and return to a less stretched condition. When stretched, the cells at the top flatten out and when relaxed they become rounded. What is this tissue?

- a) stratified squamous
- b) stratified cuboidal
- c) stratified columnar
- d) transitional
- e) pseudostratified columnar

Answer: <https://biology-forums.com/index.php?topic=1900465>

### Question 27

Which is the proper sequence of steps in the healing of a fracture (the steps are listed below but are not in the correct sequence of events):

- 1 osteoblasts form trabecular bone that joins together the fractured ends of the bone and bony callus replaces fibrocartilage callus
- 2 bone remodeling occurs and compact bone replaces the spongy bone around the periphery of the fracture site
- 3 fibroblasts and chondrocytes from the periosteum form the fibrocartilage callus
- 4 a fracture hematoma forms and bone cells in the region of the fracture die
- 5 phagocytes and osteoclasts begin to remove the dead cells and damaged tissue around the hematoma

- a) 4, 5, 1, 2, 3
- b) 5, 4, 3, 1, 2
- c) 4, 5, 2, 3, 1
- d) 3, 1, 2, 4, 5
- e) 4, 5, 3, 1, 2

Answer: <https://biology-forums.com/index.php?topic=1900564>

### Question 28

Which of the following statements about the uterus is NOT correct?

- a) The uterus is anterior to the urinary bladder.
- b) The fundus is the portion of the uterus that is superior to the uterine tubes.
- c) The isthmus is located between the body of the uterus and the cervix.
- d) The internal os is the superior opening of the cervical canal.
- e) The cervix projects inferiorly and posteriorly.

Answer: <https://biology-forums.com/index.php?topic=1901222>

### Question 29

Subtle anatomical differences between each hemisphere in the brain is called:

- a) lobular specialization
- b) global differentiation
- c) hemispheric lateralization
- d) cranial integration
- e) apraxia

Answer: <https://biology-forums.com/index.php?topic=1900897>

### Question 30

Which structure in the diagram is an opening in the taste bud?

- A
- B
- C
- D
- G

Answer: <https://biology-forums.com/index.php?topic=1904078>

### Question 31

Where is the rectus femoris?

- A
- B
- C
- D
- I

Answer: <https://biology-forums.com/index.php?topic=1903402>

### Question 32

In intracellular fluid the most abundant cation is:

- a) Na<sup>+</sup>
- b) Cl<sup>-</sup>
- c) K<sup>+</sup>
- d) HPO<sub>4</sub><sup>2-</sup>
- e) HCO<sub>3</sub><sup>-</sup>

Answer: <https://biology-forums.com/index.php?topic=1877824>

### Question 33

Native people of the Amazon basin in South America use curare, a poison, on arrows and blow darts, to paralyze and bring down small game. Which part of the sequence of events at the neuromuscular junction does curare specifically disrupt?

- a) release of acetylcholine (ACh)
- b) activation of ACh receptors
- c) production of a muscle action potential
- d) activation of acetylcholinesterase
- e) release of calcium from the terminal cisterns

Answer: <https://biology-forums.com/index.php?topic=1900710>

### Question 34

Which layer is the dura mater?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903469>

### Question 35

A compartment is a group of muscles that have a common function, blood vessels and nerves associated with that muscle group.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900799>

### Question 36

The respiratory and cardiovascular systems have all of the following functions in common EXCEPT

1. transport of gases.
  2. exchange of gases
  3. maintenance of blood pH
- a) 1 only
  - b) 2 only
  - c) 3 only
  - d) 1 and 2 are correct
  - e) 1, 2, and 3 are correct

Answer: <https://biology-forums.com/index.php?topic=1901096>

### Question 37

Briefly describe what is happening at stage of the ECG labeled 5 in the diagram.

Answer: <https://biology-forums.com/index.php?topic=1904130>

### Question 38

Which stimulus does not stimulate the reticular activating system (RAS)?

- a) an alarm clock
- b) pain
- c) smoke
- d) bright light
- e) movement of the limbs

Answer: <https://biology-forums.com/index.php?topic=1900933>

### Question 39

The placenta forms from the chorionic villi of the mother and the decidua basalis of the embryonic endoderm.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901247>

### Question 40

In the diagram of the humerus, where is the olecranon fossa?

- A
- B
- C
- F
- Not labeled on the diagram

Answer: <https://biology-forums.com/index.php?topic=1903187>

### Question 41

What is being shown by the axis labeled E?

- time
- tetanus
- force of contraction
- twitch factor
- wave summation

Answer: <https://biology-forums.com/index.php?topic=1903391>

### Question 42

Visceral pain coming from the pancreas is referred to which location(s) in the diagram?

- B
- D
- H

- F
- E

Answer: <https://biology-forums.com/index.php?topic=1904050>

### Question 43

Which of the panels in the figure shows a movement called lateral flexion?

- B
- F
- G
- D
- C

Answer: <https://biology-forums.com/index.php?topic=1903216>

### Question 44

Tendon sheaths are similar to bursae in structure, but wrap tendons in areas where they receive a great deal of frictional wear and tear, such as the wrists and ankles, and where tendons pass through synovial cavities.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900694>

### Question 45

All of the following are wastes removed by the kidneys EXCEPT

- urea.
- bilirubin.
- creatinine.
- drugs.
- water.

Answer: e

Question type: True/False

1) The kidneys lie within the peritoneal membrane.

[b]True or False?[/b] Answer: False

Question type: Multiple Choice

1) A nephron includes a

- renal corpuscle.
- renal tubule.
- renal capsule.

- 1 only
- 2 only
- 3 only
- 1 and 2 are correct.
- 1, 2, and 3 are correct.

Answer: d

1) Juxtamedullary nephrons

- make up about 80-85% of the nephrons within the kidney.
- allows excretion of very dilute or concentrated urine.
- have renal corpuscles located in the outer portion of the renal cortex.
- have very short nephron loops.
- have very thick descending nephron loops.

Answer: b

1) If the urinary excretion rate of a drug such as penicillin is greater than the rate at which it is filtered at the glomerulus, how else is it getting into the urine?

- movement through intercellular clefts in the glomerular capillaries
- active transport
- blood colloid osmotic pressure
- tubular reabsorption
- tubular secretion

Answer: e

1) The glomerular filtrate contains a lower concentration of \_\_\_\_\_ than does blood plasma.

- albumin
- glucose
- water
- sodium

e) urea

Answer: a

Question type: True/False

1) Filtration through the glomerular capillaries is much greater than that seen in capillaries elsewhere in the body because the afferent arteriole in the glomerulus is smaller than the efferent arteriole.

[b]True or False?[/b] Answer: False

Question type: Multiple Choice

1) Which of the following equations is CORRECT?

- a)  $NFP = GBHP + CHP - BCOP$
- b)  $NFP = GBHP - CHP + BCOP$
- c)  $NFP = GBHP + CHP + BCOP$
- d)  $NFP = GBHP - CHP - BCOP$
- e)  $NFP = GBHP - BCOP$

Answer: d

1) Glomerular filtration rate is increased by all of the following EXCEPT

- a) increased production of angiotensin II.
- b) increased secretion of atrial natriuretic peptide.
- c) increased stretching of smooth muscle fibers in afferent arterioles.
- e) increased activity of renal sympathetic nerves.

Answer: b

1) The structure indicated is the

- a) route for paracellular reabsorption.
- b) route for transcellular reabsorption.
- c) apical membrane.
- d) basolateral membrane.
- e) location of a sodium-potassium pump.

Answer: d

1) Sodium ions may be reabsorbed through

- a) sodium-glucose symporters in the proximal convoluted tubules.
- b) sodium-hydrogen ion antiporters in the nephron loop.
- c) sodium-glucose symporters in the distal convoluted tubule.
- d) sodium-hydrogen ion antiporters in the late distal convoluted tubule.
- e) sodium-chloride symporters in the collecting duct.

Answer: a

Question type: True/False

1) For every two hydrogen ions secreted into the proximal convoluted tubule, one bicarbonate and one sodium ion is reabsorbed.

[b]True or False?[/b] Answer: False

Question type: Multiple Choice

1) Which of the following hormones increases reabsorption of sodium in the kidney?

- 1. angiotensin II
- 2. aldosterone
- 3. atrial natriuretic peptide

- a) 1 only
- b) 2 only
- c) 3 only
- d) 1 and 2 are correct
- e) 1, 2, and 3 are correct

Answer: d

Question type: Multiple Choice

1) Concentrated urine is formed in part because of the action of symporters which actively reabsorb ions from the fluid in the

- a) glomerulus.
- b) proximal convoluted tubules.
- c) descending limb of the nephron loop.
- d) thick segment of the ascending nephron loop
- e) collecting ducts.

Answer: d

1) ADH acts on the \_\_\_\_\_ to regulate facultative water reabsorption.

- a) proximal convoluted tubules
- b) descending portions of the nephron loop
- c) thick and thin segments of the ascending nephron loop
- d) early and late distal convoluted tubules



e) late distal convoluted tubules and collecting ducts

Answer: e

Question type: True/False

1) Countercurrent exchange refers to that portion of the countercurrent mechanism which results in a progressively increasing osmotic gradient in the juxtamedullary nephrons.

[b]True or False?[/b] Answer: False

Question type: Multiple Choice

1) All of the following might be observed in a freshly voided normal urine sample EXCEPT

- a) amber color.
- b) transparency.
- c) ammonia odor
- d) pH 6.0
- e) specific gravity 1.020.

Answer: c

Question type: True/False

1) Trace amounts of bilirubin and urobilinogen may be found in a normal urine sample.

[b]True or False?[/b] Answer: True

Question type: Multiple Choice

1) Which of the following might indicated abnormal kidney function?

- a) creatinine clearance less than 120-140 mL/min
- b) serum creatinine less than 1.5 mg/dL (135 mmol/liter)
- c) glucose in the urine
- d) creatinine clearance less than 120-140 mL/min and serum creatinine less than 1.5 mg/dL (135 mmol/liter) are both correct
- e) creatinine clearance less than 120-140 mL/min, serum creatinine less than 1.5 mg/dL (135 mmol/liter), and glucose in the urine are all correct

Answer: a

Question type: True/False

1) Urea clearance is generally higher than creatinine clearance because urea is a waste product.

[b]True or False?[/b] Answer: False

Question type: Multiple Choice

1) Urine moves from the renal pelvis to the urinary bladder because of

- 1. peristalsis.
  - 2. gravity.
  - 3. hydrostatic pressure.
- a) 1 only
  - b) 2 only
  - c) 3 only
  - d) 1 and 2 are correct.
  - e) 1, 2, and 3 are correct.

Answer: e

Question type: True/False

1) Micturition is the involuntary portion of urination.

[b]True or False?[/b] Answer: False

Question type: Multiple Choice

1) Which of the following statements is NOT correct?

- a) The female urethra extends from the internal to external urethral orifices.
- b) The male urethra is about 20cm long.
- c) Both the male and the female urethra contain transitional epithelium, stratified columnar epithelium, and stratified squamous epithelium.
- d) All of the statements are correct.
- e) None of the statements are correct.

Answer: e

Question type: True/False

1) Both the lungs and the liver help to control blood levels of hydrogen ions.

[b]True or False?[/b] Answer: False

Question type: Multiple Choice

1) The \_\_\_\_\_ of the embryo develops into nephrons.

- a) pronephros
- b) mesonephros
- c) metanephric mesoderm
- d) metanephros
- e) ureteric bud

Answer: c

1) The \_\_\_\_\_ of the embryo gives rise to collecting ducts, calyces, renal pelves, and ureters.

- a) pronephros

- b) mesonephros
- c) metanephric mesoderm
- d) metanephros
- e) ureteric bud

Answer: e

1) Which of the following statements accurately reflect aging of the kidneys?

- 1. The kidneys decrease in size.
- 2. Glomerular filtration rate decreases.
- 3. Renal blood flow decreases.

- a) 1 only
- b) 2 only
- c) 3 only
- d) 1 and 2 are correct.
- e) 1, 2, and 3 are correct.

Answer: e

Package Title: Clickers

Course Title: pap13

Chapter Number: 27

Question type: Multiple Choice

1) Which of the following correctly matches a body fluid compartment with its approximate volume?

- a) intracellular fluid: 40% of total body fluids
- b) extracellular fluid: 20% of total male body mass
- c) interstitial fluid: 20% of extracellular fluid
- d) plasma: 20% of interstitial fluid
- e) solids: 55% of total female body mass

Answer: <https://biology-forums.com/index.php?topic=1901186>

### Question 46

Which of these types of channels is involved in leaking sodium and potassium ions across the membrane in order to establish the resting potential of a cell?

- A
- B
- C
- D

Answer: <https://biology-forums.com/index.php?topic=1903454>

### Question 47

Skeletal muscle is covered, surrounded and protected by various layers of connective tissue. Which layer of connective tissue would surround a bundle of muscle fibers (muscle cells)?

- a) epimysium
- b) hypodermis
- c) fascia
- d) perimysium
- e) endomysium

Answer: <https://biology-forums.com/index.php?topic=1900705>

### Question 48

Which list includes the muscles responsible for moving the eyeballs and eyelids?

- a) orbicularis oculi, zygomaticus minor, temporalis
- b) inferior oblique, superior rectus, levator palpebrae
- c) rectus abdominus, internal oblique, transverse abdominus
- d) sternocleidomastoid, digastric, mylohyoid
- e) splenius capitis, teres major, infraspinatus

Answer: <https://biology-forums.com/index.php?topic=1900748>

### Question 49

Of the bones of the lower leg, only the tibia is an actual weight-bearing bone.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900654>

### Question 50

In this type of cell junction, the transmembrane proteins are integrins which anchor the cell to a basement membrane.

- a) tight junctions
- b) gap junctions
- c) desmosomes
- d) hemidesmosomes
- e) adherens junctions

Answer: <https://biology-forums.com/index.php?topic=1900460>

### Question 51

Which of the following sympathetic responses is mismatched with its body part?

- a) iris of eye dilation of pupil
- b) liver increased glycogen synthesis
- c) stomach decreased motility
- d) hair follicles contraction of arrector pili muscles
- e) adipose tissue increased lipolysis

Answer: <https://biology-forums.com/index.php?topic=1900915>

### Question 52

Which neurotransmitter is released at the gland by the preganglionic neuron in the diagram?

- Norepinephrine
- Acetylcholine
- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1904014>

### Question 53

Which joint consists of a fibrocartilage pad that joins the two pubic bones anteriorly?

- a) acetabulum
- b) pectineal line
- c) lesser sciatic notch
- d) pubic symphysis
- e) ischial tuberosity

Answer: <https://biology-forums.com/index.php?topic=1900628>

### Question 54

This tissue covers body surfaces and lines hollow organs of the body such as the stomach and bladder.

- a) epithelial tissue
- b) connective tissue
- c) muscular tissue
- d) nervous tissue

Answer: <https://biology-forums.com/index.php?topic=1900454>

### Question 55

Which type of circuit is involved in solving mathematical problems?

- A
- B
- C
- D

Answer: <https://biology-forums.com/index.php?topic=1903459>

### Question 56

This type of connective tissue has no direct blood supply in its extracellular matrix, which makes it slow to heal.

- a) reticular
- b) areolar
- c) cartilage
- d) dense irregular
- e) adipose

Answer: <https://biology-forums.com/index.php?topic=1900474>

### Question 57

Which figure exhibits isometric contraction of the biceps brachii muscle?

- A
- B
- C
- none of these choices

Answer: <https://biology-forums.com/index.php?topic=1903395>

### Question 58

In the diagram, which panel shows events occurring during anaphase?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902865>

### Question 59

In primary ossification, the first type of bone that forms and replaces the cartilage model is compact bone.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900578>

### Question 60

When phenotype can be drastically different depending on parental origin it is called:

- a) Mutation
- b) Translocation
- c) Genomic imprinting
- d) Incomplete dominance
- e) Codominance

Answer: <https://biology-forums.com/index.php?topic=1877836>

### Question 61

Which of the following would normally be found in the cytosol of a body cell?

- a) water and ions
- b) amino acids
- c) glucose
- d) fatty acids
- e) all of these can be found in the cytosol

Answer: <https://biology-forums.com/index.php?topic=1900418>

### Question 62

In the diagram, where is the axon terminal?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903381>

### Question 63

Which zone of the adrenal gland secretes androgens?

Mark Nielsen

- A
- B
- C

- D
- None of the zones

Answer: <https://biology-forums.com/index.php?topic=1904085>

### Question 64

In the diagram, individual muscle fibers are covered by this layer.

- K
- I
- L
- M
- A

Answer: <https://biology-forums.com/index.php?topic=1903383>

### Question 65

Which of the following does not influence the responsiveness of a target cell to a hormone?

- a) the number of receptors on the target cell
- b) the temperature of the tissue
- c) the presence and effects of other hormones
- d) the concentration of the hormone
- e) previous exposure to a hormone

Answer: <https://biology-forums.com/index.php?topic=1900958>

### Question 66

The largest fontanel of an infants skull is the anterior fontanel. It usually closes (ossification is completed) at which time after birth?

- a) 12 months after birth
- b) 3 months after birth
- c) 69 months after birth
- d) 12 months after birth
- e) 1824 months after birth

Answer: <https://biology-forums.com/index.php?topic=1900596>

### Question 67

Which of the following labeled structures in the diagram stores triglycerides in adult bones?

- A
- B
- C
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1902963>

### Question 68

Which of these examples represents potential energy?

- a) Running around a track
- b) Water held behind a dam
- c) Water running from a faucet
- d) Swinging a baseball bat
- e) Folding laundry

Answer: <https://biology-forums.com/index.php?topic=1900389>

### Question 69

In the diagram, which part is often broken during CPR due to incorrect positioning of hands?

- A
- B
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1903174>

### Question 70

Sleep walking occurs in which stage of non-rapid eye movement (NREM) sleep?

- a) stage 1
- b) stage 2
- c) stage 3
- d) stage 4

Answer: <https://biology-forums.com/index.php?topic=1900934>

### Question 71

A bronchopulmonary segment is directly supplied by a \_\_\_\_\_.

- a) primary bronchus.
- b) secondary (lobar) bronchus.
- c) tertiary (segmental) bronchus.
- d) respiratory bronchiole.
- e) alveolar duct.

Answer: <https://biology-forums.com/index.php?topic=1901104>

### Question 72

A broad, flat sheet of connective tissue called an interosseous membrane connects the bones of the forearm (radius and ulna).

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900647>

### Question 73

Which of the labeled structures carries exclusively motor information away from the spinal cord?

Dissection: Shawn Miller  
Photograph: Mark Nielsen

- B
- C
- F
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1903746>

### Question 74

Which of the joints shown in the figure is classified as a monaxial joint?

- A
- B
- C
- D
- B and C

Answer: <https://biology-forums.com/index.php?topic=1903212>

### Question 75

Which statement accurately describes the thymus?

- a) decreases in size by about one-half as a person ages
- b) is the site of B cells maturity
- c) is located between the upper portion of the lungs
- d) no T cells are left in the thymus during in older age
- e) is a single-lobed organ overlying the esophagus

Answer: <https://biology-forums.com/index.php?topic=1901075>

### Question 76

The respiratory membrane does not include the visceral and parietal pleura.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901105>

### Question 77

The following is a possible progression of which of the following disorders: Inadequate dietary iodine intake low level of thyroid hormone in blood increased TSH secretion thyroid gland enlargement.

- a) Acromegaly
- b) Tetany
- c) Goiter
- d) Cushing's syndrome
- e) Addison's disease

Answer: <https://biology-forums.com/index.php?topic=1877800>

### Question 78

In the diagram, where is the perpendicular plate?

- A
- B
- C
- E
- D

Answer: <https://biology-forums.com/index.php?topic=1903166>

### Question 79

Which of the labeled structures in the diagram of the trigeminothalamic pathway is the trigeminothalamic tract?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903941>

### Question 80

Which panel in the figure shows an example of the movement termed inversion?

- B
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1903223>

### Question 81

A person who has what is often called head cold will have difficulty breathing through their nose and will notice that their voice sounds different from when they don't have a cold. Which aspect of the functions of the paranasal sinuses helps explain this?

1. swelling of mucous membrane, and congestion from overproduction of mucus within the sinuses reduces the flow of air through the sinuses, giving that stuffy feeling
2. the air being warmed in the sinuses is becoming overly warmed and dried from fever, affecting the voice
3. congested sinuses result in smaller spaces for the voice to resonate (echo), so the voice sounds different than it normally does

- a) 1 only
- b) 2 only
- c) 3 only
- d) 1, 2 and 3
- e) 1 and 3

Answer: <https://biology-forums.com/index.php?topic=1900595>

### Question 82

What area in the figure represents a very deep exhalation, much greater than the tidal volume?

- C
- H
- D

- B
- G

Answer: <https://biology-forums.com/index.php?topic=1904233>

### Question 83

Which of the following is not a characteristic of fontanels?

- fontanels are important areas where oxygen can pass through to the developing brain in infancy
- fontanels allow the head to expand in size to accommodate the brain growth that occurs in the first two years of life
- fontanels allow the skull to change shape during the passage of the infant through the birth canal, and then allow the skull to regain its shape following birth
- infants are usually born with six major fontanels (though he or she may have some smaller ones), all of which will ossify and become incorporated into the bones of the skull in two years or less
- fontanels will become ossified by intramembranous ossification

Answer: <https://biology-forums.com/index.php?topic=1900597>

### Question 84

This is composed of dense irregular tissue that runs continuous with the ureter.

- A
- B
- C

Answer: <https://biology-forums.com/index.php?topic=1904256>

### Question 85

Liver cells convert:

- Urea into ammonia
- Ammonia into lactic acid
- Lactic acid into urea
- Pyruvic acid into urea
- Ammonia into urea

Answer: <https://biology-forums.com/index.php?topic=1877814>

### Question 86

Normal blood Na<sup>+</sup> levels are 136-148 mEq/L. An elderly patient has a blood Na<sup>+</sup> of 105 mEq/L. Describe the patient's condition and the signs and symptoms that usually accompany that condition. Be sure to include the functions of Na<sup>+</sup> in the body in your answer.

Answer: <https://biology-forums.com/index.php?topic=1877828>

### Question 87

The \_\_\_\_\_ of the uterus is part of the visceral peritoneum.

- stratum functionalis.
- stratum basalis
- perimetrium
- myometrium
- endometrium

Answer: <https://biology-forums.com/index.php?topic=1901224>

### Question 88

Which figure illustrates nearsightedness before it has been corrected?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904067>

### Question 89

Bile enters the gallbladder from the liver through the common bile duct and leaves the gallbladder through the cystic duct.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901150>



### Question 90

Where is the deltoid?

- C
- D
- F
- G
- I

Answer: <https://biology-forums.com/index.php?topic=1903403>

### Question 91

With respect to neurons, the term nerve fiber refers to

- a) an axon.
- b) a dendrite
- c) a Nissl body.
- d) both axons and dendrites.
- e) all of these choices

Answer: <https://biology-forums.com/index.php?topic=1877783>

### Question 92

Where is the bodys thermostat located?

- a) Cerebral cortex
- b) Preoptic area of the hypothalamus
- c) Postoptic area of the hypothalamus
- d) Thalamus
- e) Cerebellum

Answer: <https://biology-forums.com/index.php?topic=1877817>

### Question 93

Which of the following cells secretes intrinsic factor?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904248>

### Question 94

Which feature(s) of the skin protect(s) us against microbes such as bacteria?

- a) the many layers of keratinized cells form a barrier against microbes
- b) sebum contains compounds which kill bacteria
- c) sweat has an acidic pH which suppresses microbial growth
- d) Intraepidermal macrophages can alert the immune system should microbes invade
- e) all of these are correct

Answer: <https://biology-forums.com/index.php?topic=1900519>

### Question 95

The incisors, cuspids, premolars, and molars are required for formation of a bolus before swallowing.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901138>

### Question 96

In the diagram of skin shown below, where is the apocrine sweat gland?

- C
- D
- E
- F
- H

Answer: <https://biology-forums.com/index.php?topic=1902903>

### Question 97

The space between the middle layer of the meninges and the deepest layer of the meninges is:

- a) epidural space
- b) epiarachnoid space
- c) subdural space
- d) subarachnoid space
- e) subpia space

Answer: <https://biology-forums.com/index.php?topic=1900870>

### Question 98

Which list shows the correct structural elements of the thoracic cage?

- a) ribs, sternum, costal cartilages
- b) ribs, sternum, costal cartilages, thoracic vertebrae
- c) ribs and thoracic vertebrae
- d) ribs and sternum
- e) ribs and costal cartilages

Answer: <https://biology-forums.com/index.php?topic=1900600>

### Question 99

Closure of the ductus arteriosus requires

- a) closure of the foramen ovale.
- b) functioning of the lungs.
- c) decreasing blood oxygen levels at birth.
- d) ligation of the umbilical cord.
- e) collapse of the ductus venosus.

Answer: <https://biology-forums.com/index.php?topic=1901263>

### Question 100

Where is the aorticorenal ganglion in the diagram?

- C
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1903926>

### Question 101

Trisomy 13 would most commonly be the result of

- a) nondisjunction.
- b) genomic imprinting.
- c) incomplete dominance.
- d) translocation.
- e) multiple-allele inheritance.

Answer: <https://biology-forums.com/index.php?topic=1901267>

### Question 102

Which of the following does not pertain to the lacrimal apparatus?

- a) tears are produced by the sebaceous glands
- b) tears contain a bactericidal enzyme
- c) tears exit the eye vicinity via two small lacrimal puncta
- d) lacrimal fluid ultimately ends up in the nasal cavity
- e) lacrimal ducts empty tears onto the conjunctiva of the upper lid

Answer: <https://biology-forums.com/index.php?topic=1900941>

### Question 103

Which structure in the figure is the corpus spongiosum penis?

- F
- D
- C
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1904288>

### Question 104

Where is the cardiac plexus in the figure?

- A
- B
- H
- I
- J

Answer: <https://biology-forums.com/index.php?topic=1903967>

### Question 105

A high count of which of the white blood cells shown in the figure may indicate viral infections?

- A & B
- B & C
- C & D
- D & E
- E & C

Answer: <https://biology-forums.com/index.php?topic=1904116>

### Question 106

The ovaries are held in position in the pelvic cavity by the

1. ovarian ligament.
  2. suspensory ligament.
  3. uterine tubes.
- a) 1 only
  - b) 2 only
  - c) 3 only
  - d) 1 and 2 are correct.
  - e) 1, 2, and 3 are correct.

Answer: <https://biology-forums.com/index.php?topic=1901218>

### Question 107

Which of the following develops from the epiblast and carries a protective fluid?

- a) Cytotrophoblast
- b) Yolk sac
- c) Exocoelomic membrane
- d) Amnion
- e) Lacunae

Answer: <https://biology-forums.com/index.php?topic=1877834>

### Question 108

Which of the following is the correct sequence of bones of the upper limb, from proximal to distal ends?

- a) carpals, metacarpals, phalanges, radius and ulna, humerus
- b) humerus, radius and ulna, carpals, metacarpals, phalanges
- c) humerus, tibia and ulna, metatarsals, tarsals, phalanges
- d) phalanges, metacarpals, carpals, radius and fibula, humerus
- e) phalanges, metacarpals, carpals, radius and ulna, humerus

Answer: <https://biology-forums.com/index.php?topic=1900618>

### Question 109

Which of the joints shown in the figure is classified as a multiaxial joint?

- B
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1903210>

### Question 110

Which cranial bone is called the keystone of the cranial floor because it articulates with every other cranial bone?

- a) Occipital
- b) Frontal
- c) Ethmoid
- d) Nasal
- e) Sphenoid

Answer: <https://biology-forums.com/index.php?topic=1877777>

### Question 111

The different types of RNA molecules are examples of nucleic acids that have a double helix shape.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900408>

### Question 112

What is the relationship between the knee and the foot?

- a) The knee is distal to the foot.
- b) The knee is proximal to the foot.
- c) The foot is superior to the knee.
- d) The knee is medial to the foot.
- e) The foot is lateral to the knee.

Answer: <https://biology-forums.com/index.php?topic=1900368>

### Question 113

Where is the ascending limb of the nephron loop?

- C
- D
- J
- K
- L

Answer: <https://biology-forums.com/index.php?topic=1904266>

### Question 114

Where is the lateral rectus?

- C
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1903415>

### Question 115

In the diagram, which bone is the flat bone?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903150>

### Question 116

The superior mesenteric ganglion receives nervous input from the

- lesser splanchnic nerve.
- least splanchnic nerve.
- greater thoracic splanchnic nerve.
- a and b only
- a, b, and c

Answer: <https://biology-forums.com/index.php?topic=1903960>

### Question 117

The pigment-producing cells of the epidermis are located in which layer?

- a) stratum corneum
- b) stratum lucidum
- c) stratum granulosum
- d) stratum spinosum
- e) stratum basale

Answer: <https://biology-forums.com/index.php?topic=1900501>

### Question 118

Which of the following substances, if added to water, would change the pH of water to a value < 7.0?

- a) Sugar
- b) Salt
- c) Inorganic acid
- d) Inorganic base
- e) None of these choices

Answer: <https://biology-forums.com/index.php?topic=1900393>

### Question 119

Which antigen is not considered an exogenous antigen?

- a) bacteria
- b) pollen
- c) parasitic worms
- d) dust
- e) intracellular viruses

Answer: <https://biology-forums.com/index.php?topic=1901084>

### Question 120

The bones of the foot are held in place by tendons and ligaments and form two arches: the transverse and lateral arches. These arches are rigid, and by the time a child is 12 or 13, they are fully formed and inflexible. This rigidity enables us to walk with greater ease.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900656>

### Question 121

Which labeled structure in the figure is the AV node?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904144>

### Question 122

The skin is also known as a (the)\_\_\_\_\_.

- a) cutaneous membrane
- b) serous membrane
- c) dermal membrane
- d) reticular membrane
- e) synovial membrane

Answer: <https://biology-forums.com/index.php?topic=1900497>

### Question 123

Describe what is happening during the phase of the cardiac action potential labeled 2 in the diagram.

Answer: <https://biology-forums.com/index.php?topic=1904129>

### Question 124

Four of the six extrinsic muscles that move the eyeball are innervated by the oculomotor nerve (III).

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900832>

### Question 125

\_\_\_\_\_ stimulates increased secretion of pancreatic juice that is rich in bicarbonate ions.

- a) Gastrin
- b) Secretin
- c) Cholecystokinin
- d) Pepsin
- e) Somatostatin

Answer: <https://biology-forums.com/index.php?topic=1901161>

### Question 126

During a needle biopsy of a persons bone marrow, maybe to test for the presence of cancer , pain is felt when the needle passes through the periosteum because it is richly supplied with nerves.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900573>

### Question 127

The visceral layer of the serous pericardium:

- a) is fused to the fibrous pericardium
- b) is the fluid that offers protection to the heart
- c) is the outer layer of the heart
- d) is a tough, inelastic layer that anchors the heart in the mediastinum
- e) is also called the pericardial cavity

Answer: <https://biology-forums.com/index.php?topic=1900999>

### Question 128

The action of the suprahyoid muscles causes elevation of the hyoid bone, while the infrahyoid muscles generally cause depression of the hyoid.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900836>

### Question 129

Which of the labeled cells in the diagram of deep wound healing shown below has phagocytic properties?

- C
- E
- F
- All of these answer choices are correct.
- Both E and F

Answer: <https://biology-forums.com/index.php?topic=1902919>

### Question 130

Visceral pain coming from the lung and diaphragm is referred to which location(s) in the diagram?

- A
- B
- C
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1904047>

### Question 131

What lines are pointing to tertiary bronchi?

- E and K
- D and J
- F and L
- H and M
- A and B

Answer: <https://biology-forums.com/index.php?topic=1904192>

### Question 132

Which of the labeled structures in the diagram of the trigeminothalamic pathway is the trigeminal ganglion?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903942>

### Question 133

In the diagram, where is the zone of resting cartilage?

- A
- B
- C
- D

Answer: <https://biology-forums.com/index.php?topic=1902960>

### Question 134

Which of these serous membranes lines the abdominal cavity and covers the abdominal organs?

- a) pleurae
- b) pericardium
- c) peritoneum
- d) cutaneous membrane
- e) synovial membrane

Answer: <https://biology-forums.com/index.php?topic=1900479>

### Question 135

In the diagram, which labeled structure is the pulmonary semilunar valve?

- B
- D
- E
- A
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904127>

### Question 136

Which of the following is directly responsible for transmitting an action potential from a motor neuron to a skeletal muscle fiber?

- a) gap junctions
- b) intercalated discs
- c) myofibrils
- d) creatine phosphate
- e) acetylcholine

Answer: <https://biology-forums.com/index.php?topic=1900714>

### Question 137

Which statement is false about the medulla oblongata?

- a) the cardiovascular center regulates heart rate
- b) the nuclei of the medulla oblongata are masses of white matter where neurons synapse
- c) some nuclei are involved with coughing, swallowing, and sneezing
- d) the medullary rhythmicity center adjusts breathing

Answer: <https://biology-forums.com/index.php?topic=1900886>

### Question 138

What is line G pointing to?

- a) Chorion
- b) Chorionic villi
- c) Sinusoid
- d) Extraembryonic mesoderm
- e) None of these choices

Answer: <https://biology-forums.com/index.php?topic=1877838>

### Question 139

The prostate secretes all of the following EXCEPT

- a) sperm.
- b) citric acid.
- c) proteolytic enzymes.
- d) acid phosphatase.
- e) seminalplasmin.

Answer: <https://biology-forums.com/index.php?topic=1901215>

### Question 140

Which of the following is the correct sequence of events in bulk-phase endocytosis shown in the figure?

- plasma membrane forms vesicle around extracellular droplets > fusion of lysosome and vesicle > vesicle formed pinches off into cytosol > digestion by enzymes > solutes released
- solutes released > plasma membrane forms vesicle around extracellular droplets > fusion of lysosome and vesicle > vesicle formed pinches off into cytosol > digestion by enzymes
- vesicle formed pinches off into cytosol > solutes released > plasma membrane forms vesicle around extracellular droplets > fusion of lysosome and vesicle > digestion by enzymes
- vesicle formed pinches off into cytosol > plasma membrane forms vesicle around extracellular droplets > fusion of lysosome and vesicle > digestion by enzymes > solutes released
- plasma membrane forms vesicle around extracellular droplets > vesicle formed pinches off into cytosol > fusion of lysosome and vesicle > digestion by enzymes > solutes released

Answer: <https://biology-forums.com/index.php?topic=1902872>

### Question 141

Which layer has stem cells that undergo cell division to continually produce new keratinocytes?

- a) stratum basale
- b) stratum spinosum
- c) stratum granulosum
- d) stratum lucidum
- e) stratum corneum

Answer: <https://biology-forums.com/index.php?topic=1900502>

### Question 142

False labor exhibits which of the following symptoms?

- a) contractions at regular intervals.
- b) pain at irregular intervals that does not intensify.
- c) discharge of blood-containing mucus into the cervical canal.
- d) alteration of pain by walking.
- e) cervical dilation.

Answer: <https://biology-forums.com/index.php?topic=1901261>

### Question 143



The first functional organ to develop in the embryo is the:

- a) lungs
- b) liver
- c) heart
- d) urinary bladder
- e) small intestine

Answer: <https://biology-forums.com/index.php?topic=1901050>

### Question 144

A child who doesn't get his or her way, in addition to pouting, may also stick out (protract) the chin. Which muscle(s) allow a child to protract the chin?

- a) masseter and buccinator
- b) buccinator and digastrics
- c) medial and lateral pterygoid
- d) masseter and temporalis
- e) medial pterygoid and temporalis

Answer: <https://biology-forums.com/index.php?topic=1900749>

### Question 145

If the pathway shown in the diagram is a parasympathetic division pathway, which neurotransmitter acts at the effector?

- Norepinephrine
- Acetylcholine
- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1903919>

### Question 146

Which of the following describes the correct sequence of events of an olfactory receptor reacting to an odorant?

- a) opening of sodium ion channels production of cAMP generation of nerve impulse depolarization
- b) production of cAMP generation of nerve impulse opening of sodium ion channels depolarization
- c) production of cAMP opening of sodium ion channels depolarization generation of nerve impulse
- d) generation of nerve impulse production of cAMP opening of sodium ion channels depolarization

Answer: <https://biology-forums.com/index.php?topic=1900937>

### Question 147

Identify the sclera.

- F
- E
- D
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1904060>

### Question 148

Which statement best describes the location of the cerebellum?

- a) anterior to cerebrum and anterior to brain stem
- b) posterior to brainstem and inferior to cerebrum
- c) superior to cerebrum and posterior to brainstem
- d) superior to brainstem and posterior to cerebrum

Answer: <https://biology-forums.com/index.php?topic=1900880>

### Question 149

Identify the structure that is a thin semi-transparent partition between the external auditory canal and the middle ear?

- K
- G
- J
- F
- E

Answer: <https://biology-forums.com/index.php?topic=1904071>

### Question 150

Where is the cardiac plexus in the figure?

- A
- B
- H
- I
- J

Answer: <https://biology-forums.com/index.php?topic=1903912>

### Question 151

Where is the pia mater?

Dissection: Shawn Miller  
Photograph: Mark Nielsen

- D
- E
- F
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1903747>

### Question 152

Where are the nasal conchae?

- A
- C
- T
- U
- V

Answer: <https://biology-forums.com/index.php?topic=1904174>

### Question 153

Shell temperatures are generally higher than core temperatures.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901179>

### Question 154

Which of the following figures shows tissue that is found in tendons and ligaments?

- B
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1902900>

### Question 155

In the diagram, where do T cells mature?

- A
- B
- C
- D
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904155>

### Question 156

Long bones adds to its length at the epiphyseal plate. In this region which type of cells proliferate, become calcified, and are eventually replaced with mature bone cells, thereby adding to the bones length?

- a) epiphyseal cells
- b) chondrocytes
- c) osteoblasts
- d) osteoclasts
- e) osteocytes

Answer: <https://biology-forums.com/index.php?topic=1900553>

### Question 157

Which labeled neuron is considered to be a second-order neuron?

- A
- B
- C
- More than one answer selection is correct.
- None of the answer selections are correct.

Answer: <https://biology-forums.com/index.php?topic=1903995>

### Question 158

Depression of the central nervous system is one of the major physiological effect of acidosis.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901193>

### Question 159

Which letter is pointing to the subcutaneous layer of the skin in the figure?

- C
- E
- B
- J
- I

Answer: <https://biology-forums.com/index.php?topic=1902924>

### Question 160

The suprahyoid muscles are involved with swallowing (deglutition), while the infrahyoid muscles return the hyoid to its pre-swallowing position, and also act on the thyroid cartilage (Adams apple) of the larynx in the production of speech.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900837>

### Question 161

Because of the involvement of carbon dioxide in the carbonic acid-bicarbonate buffer system, this buffer system provides protection against pH changes due to respiratory problems that lead to an excess or shortage of carbon dioxide.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901192>

### Question 162

Which of the following is a true statement in reference to melatonin?

1. it is secreted by the pineal gland
  2. it is stimulated by sunlight
  3. it is a derivative of serotonin
  4. it is part of the hypothalamus
- a) 1 only
  - b) 2 only
  - c) 3 only
  - d) 4 only
  - e) 1 and 3 are correct

Answer: <https://biology-forums.com/index.php?topic=1900970>

### Question 163

Which of the following plays a role in emotional sweating (sweating due to stress or strong emotion, not thermoregulation)?

- a) sebaceous glands
- b) ceruminous glands
- c) eccrine glands
- d) apocrine glands

Answer: <https://biology-forums.com/index.php?topic=1900512>

### Question 164

Which cells are derived from the yolk sac and form a connective tissue layer?

- A
- B
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1904308>

### Question 165

In the diagram, which organelle is responsible for autophagy and autolysis?

- C
- B
- F
- J
- D

Answer: <https://biology-forums.com/index.php?topic=1902858>

### Question 166

Hemoglobin can unload more oxygen in metabolically active tissues than in tissues at rest because

- a) the partial pressure of carbon dioxide is higher.
- b) lactic and carbonic acids produced by metabolically active tissues decreases pH which decreases the affinity of hemoglobin for oxygen.
- c) increasing body temperature decreases the affinity of hemoglobin for oxygen.
- d) All of these choices are True.
- e) None of these choices are True.

Answer: <https://biology-forums.com/index.php?topic=1901121>

### Question 167

Which of the following neurotransmitters are used in virtually all of the inhibitory synapses found in the spinal cord?

- a) gamma aminobutyric acid (GABA) and acetylcholine
- b) gamma aminobutyric acid (GABA) and glycine
- c) epinephrine and norepinephrine
- d) serotonin and melatonin
- e) glutamate and aspartate

Answer: <https://biology-forums.com/index.php?topic=1877785>

### Question 168

As you move from the top of a mountain to sea level, the partial pressure of oxygen increases because total atmospheric pressure is increasing.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901116>

### Question 169

Which structure in the figure produces a pigment that contributes to skin color and absorbs UV radiation?

- A
- B
- C
- D
- G

Answer: <https://biology-forums.com/index.php?topic=1902939>

### Question 170

A mechanical ventilator may aid directly in

- a) pulmonary ventilation.
- b) external respiration.
- c) internal respiration.
- d) pulmonary ventilation and external respiration are correct.
- e) pulmonary ventilation, external respiration, and internal respiration are correct.

Answer: <https://biology-forums.com/index.php?topic=1901106>

### Question 171

Which of the light micrographs in the figure below shows a simple columnar epithelium?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902878>

### Question 172

Expression of genes on both of a set of X chromosomes occurs in females.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901271>

### Question 173

Which one represents a second-class lever?

- A
- B
- C
- All of these choices
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1903400>

### Question 174

What do colored regions on body's surface in the diagram represent?

- Dermatomes
- Areas of referred pain
- Regions of nociceptors
- Areas supplied by the primary somatosensory area
- Motor nuclei

Answer: <https://biology-forums.com/index.php?topic=1903992>

### Question 175

Ross is in a car accident, and experiences damage to the trigeminal (V) nerve. Which action will possibly be affected by this trauma?

1. lateral movement of the eye
  2. blinking of the eyelids
  3. chewing food
  4. puckering of the lips
- a) 1 only
  - b) 2 only
  - c) 3 only
  - d) 4 only
  - e) both 3 & 4 will be affected

Answer: <https://biology-forums.com/index.php?topic=1900746>

### Question 176

Mammary glands are classified as apocrine glands. Which of the glands is mammary glands?

- a) compound tubular
- b) compound acinar
- c) compound tubuloacinar

Answer: <https://biology-forums.com/index.php?topic=1900467>

### Question 177

All of the following are functions of electrolytes in the body EXCEPT

- a) control osmosis of water between fluid compartments.
- b) act as enzymes in some metabolic pathways.
- c) serve as enzyme cofactors.
- d) help maintain acid-base balance.
- e) carry electrical current.

Answer: <https://biology-forums.com/index.php?topic=1901190>

### Question 178

In the diagram, where are axon terminals?

- F
- G
- H
- I
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1903448>

### Question 179

Which neurotransmitter is released at the autonomic ganglion by the preganglionic neuron in the diagram?

- Norepinephrine
- Acetylcholine
- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1904013>

### Question 180

In external respiration \_\_\_\_\_, while \_\_\_\_\_ occurs in internal respiration.

- a) oxygen moves from the alveoli to the pulmonary capillaries; carbon dioxide moves from the pulmonary capillaries to the alveoli.
- b) oxygen moves from the alveoli to the pulmonary capillaries; oxygen moves from the pulmonary capillaries to the alveoli.
- c) carbon dioxide moves from the alveoli to the pulmonary capillaries; carbon dioxide moves from the pulmonary capillaries to the alveoli.
- d) oxygen moves from the alveoli to the pulmonary capillaries; oxygen moves from the tissues to the systemic capillaries.
- e) oxygen moves from the alveoli to the pulmonary capillaries; carbon dioxide moves from the tissues to the systemic capillaries.

Answer: <https://biology-forums.com/index.php?topic=1901118>

### Question 181

Impingement syndrome, a common stress-related injury in sports such as tennis or baseball, is caused by compression of the tendon of the infraspinatus.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900849>

### Question 182

Which of the following bones of the wrist is more likely to be fractured when a person puts out their hand to break their fall?

- a) lunate
- b) hamate
- c) capitates
- d) pisiform
- e) scaphoid

Answer: <https://biology-forums.com/index.php?topic=1900623>

### Question 183

In the diagram, which is the hair matrix?

- A
- B
- C
- D
- G

Answer: <https://biology-forums.com/index.php?topic=1902942>

### Question 184

Which structure in the figure is the theca externa?

- A
- H
- E
- D
- F

Answer: <https://biology-forums.com/index.php?topic=1904298>

### Question 185

An elderly woman trips and falls. She puts out her hand to try to stop her fall, and ends up with a fracture of the lower arm. An x-ray shows that at the break, many pieces of bone have a splintered and fragmented appearance. Which type of fracture does this woman have?

- a) open (compound) fracture
- b) closed fracture
- c) comminuted fracture
- d) greenstick fracture
- e) stress fracture

Answer: <https://biology-forums.com/index.php?topic=1900563>

### Question 186

Which labeled structure in the figure carries the cardiac action potential directly into the contractile fibers of the ventricular myocardium?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904146>

### Question 187

In the figure shown, which light micrograph shows the type of cartilage that is most abundant in the human body?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1902881>

### Question 188

Exercise can produce a fashionable six pack of toned muscles. Which of the following muscles is involved in giving the appearance of this defined pack of muscles?

- a) external oblique
- b) internal oblique
- c) transversus abdominis
- d) rectus abdominis
- e) serratus anterior

Answer: <https://biology-forums.com/index.php?topic=1900755>

### Question 189

Which of the labeled structures in the diagram is a cutaneous mechanoreceptor that senses pressure and fast vibrations?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903933>

### Question 190

Which of the following cells secretes gastrin?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904249>

### Question 191

Which chemical class of hormones is not matched correctly?

- a) nitric oxide lipid soluble
- b) steroids lipid soluble
- c) antidiuretic hormone lipid soluble
- d) T3 and T4 water soluble
- e) catecholamines water soluble

Answer: <https://biology-forums.com/index.php?topic=1900956>

### Question 192

The pectoral girdle consists of 2 bones labeled \_\_\_\_\_ and \_\_\_\_\_ in the diagram.

- A and B
- A and G
- C and F
- F and H
- E and F

Answer: <https://biology-forums.com/index.php?topic=1903203>

### Question 193

Approximately 80% of males experience significant hair loss by age 60.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900542>

### Question 194

The accumulation of melanin into freckles is a genetic trait. These patches of pigmentation tend to darken with sun exposure and fade during the winter when there is less exposure to the sun.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900533>

### Question 195

Which type of connective tissue provides the supporting framework for the liver, spleen, lymph nodes, and red bone marrow?

- a) reticular
- b) loose
- c) areolar
- d) dense regular
- e) adipose

Answer: <https://biology-forums.com/index.php?topic=1900468>

### Question 196

Which statement best describes reciprocal innervation:

- a) contraction of antagonist with simultaneous relaxation of agonist
- b) contraction of agonist with delayed relaxation of antagonist



- c) relaxation of antagonist at the same time of contraction of agonist
- d) simultaneous relaxation of agonist and antagonist
- e) simultaneous contraction of agonist and antagonist

Answer: <https://biology-forums.com/index.php?topic=1900877>

### Question 197

What is the volume of blood in an average adult male?

- a) 5 to 6 quarts
- b) 5 to 6 gallons
- c) a little less than 1 gallon
- d) 5 to 6 liters

Answer: <https://biology-forums.com/index.php?topic=1900980>

### Question 198

Which cavity contains the small intestine?

- (A)
- (B)
- (C)
- (D)
- (E)

Answer: <https://biology-forums.com/index.php?topic=1902846>

### Question 199

In a hiatus hernia, the stomach protrudes through which opening of the diaphragm?

- a) the caval opening
- b) the esophageal hiatus
- c) the mediastinum
- d) the aortic hiatus
- e) the inguinal hiatus

Answer: <https://biology-forums.com/index.php?topic=1900760>

### Question 200

Which of the following pairs of muscles are agonist-antagonists (that is, one flexes and the other extends) the forearm?

- a) biceps brachii and brachioradialis
- b) brachialis and brachioradialis
- c) triceps brachii and anconeus
- d) biceps brachii and triceps brachii
- e) anconeus and supinator

Answer: <https://biology-forums.com/index.php?topic=1900773>

### Question 201

During oogenesis, the first haploid stage is the

- a) oogonium
- b) primary oocyte.
- c) secondary oocyte.
- d) ovum.
- e) zygote.

Answer: <https://biology-forums.com/index.php?topic=1901220>

### Question 202

Which of the following types of adrenergic receptors are found on cardiac muscle fibers where their activation stimulates increased force and rate of contraction of the heart?

- a) 1-adrenergic
- b) 2-adrenergic
- c) 1-adrenergic
- d) 2-adrenergic
- e) 3-adrenergic

Answer: <https://biology-forums.com/index.php?topic=1877791>

### Question 203

The extrinsic muscles of the tongue insert on the lateral and superior portions of the tongue.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900835>

### Question 204

The vocal cords, lips, and face combined would occupy a larger area in the primary motor area of the cerebral cortex than the wrist, elbow, and shoulder combined.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900931>

### Question 205

You absolutely love plain, unsweetened whipped cream and you have eaten a cup of it by itself. Which of the following enzymes would be most useful in digesting this snack?

- a) pancreatic amylase
- b) aminopeptidase
- c) gastric lipase
- d) pepsin
- e) deoxyribonuclease

Answer: <https://biology-forums.com/index.php?topic=1901153>

### Question 206

Which of the labeled structures in the diagram is a cutaneous mechanoreceptor that senses pressure and fast vibrations?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903988>

### Question 207

The fovea capitis is a feature of which bone of the lower limb?

- a) patella
- b) tibia
- c) fibula
- d) tarsus
- e) femur

Answer: <https://biology-forums.com/index.php?topic=1900632>

### Question 208

Preganglionic neurons are supplied to the submandibular ganglion by which cranial nerve?

- Oculomotor (III) nerve (cranial nerve III)
- Facial (VII) nerve (cranial nerve VII)
- Glossopharyngeal (IX) nerve (cranial nerve IX)
- Vagus (X) nerve (cranial nerve X)
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904002>

### Question 209

Which of the labeled structures in the diagram is a lamellated corpuscle?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903991>

### Question 210

Where in the diagram can you find red bone marrow in an adult?

- D
- A and B
- A and C
- C
- E

Answer: <https://biology-forums.com/index.php?topic=1902946>

### Question 211

A differential white blood cell count would not be appropriate to:

- a) determine the effects of chemotherapy
- b) aid in diagnosing a parasitic infection
- c) differentiating high density lipoprotein (HDL) from low density lipoprotein (LDL)
- d) check for poisoning by drugs
- e) determine changes during therapy of leukemia

Answer: <https://biology-forums.com/index.php?topic=1900988>

### Question 212

What is not a function of the parathyroid glands?

- a) increase formation of vitamin D
- b) increase the number of osteoclasts
- c) regulate the level of calcium in the blood
- d) increase bone resorption
- e) promote formation of calcitriol

Answer: <https://biology-forums.com/index.php?topic=1900965>

### Question 213

Which type of muscle tissue would have these characteristics: branched cells, usually has one nucleus, has striations (a striped appearance)?

- a) skeletal
- b) cardiac
- c) smooth

Answer: <https://biology-forums.com/index.php?topic=1900480>

### Question 214

When a tissue or organ has become damaged, scarring and possible loss of functionality can occur, if \_\_\_\_\_ cells of the stroma (the supportive connective tissue of that organ) are damaged.

- a) fibroblasts
- b) parenchymal cells
- c) mast cells
- d) adipocytes
- e) chondrocytes

Answer: <https://biology-forums.com/index.php?topic=1900485>

### Question 215

A bone feature called a tubercle would be which kind of bone structure?

- a) a slender projection
- b) a knob
- c) a shallow depression
- d) a hole through a bone
- e) a rounded process that rocks on an articular surface

Answer: <https://biology-forums.com/index.php?topic=1900583>

### Question 216

Which statement is not true of the interplay between PTH and calcitriol?

- a) calcitriol increases calcium absorption from foods
- b) PTH increases resorption of bone
- c) high blood calcium levels increases calcitonin release

- d) PTH decreases vitamin D levels
- e) PTH raises blood calcium levels

Answer: <https://biology-forums.com/index.php?topic=1900966>

### Question 217

Which of the following pairs of muscles inserts onto the olecranon of the ulna?

- a) brachialis and anconeus
- b) triceps brachii and pronator teres
- c) triceps brachii and anconeus
- d) biceps brachii and brachialis
- e) pronator teres and pronator quadratus

Answer: <https://biology-forums.com/index.php?topic=1900774>

### Question 218

Examine the fascicle arrangement of the fusiform muscle and the bipennate muscle. The biceps brachii is a fusiform muscle, and the rectus femoris is a bipennate muscle. The \_\_\_\_\_ muscle will be powerful, but have a more limited range of motion than the \_\_\_\_\_ muscle.

- a) bipennate / fusiform
- b) fusiform / bipennate

Answer: <https://biology-forums.com/index.php?topic=1900737>

### Question 219

Which of the following is true when describing the permissive effect of a hormone?

- a) a permissive hormone can cancel out the effect of another hormone
- b) this means that two hormones have a greater effect than just one
- c) the hormone can act alone when having an effect on a tissue
- d) is usually the result of a second hormones exposure on target cells

Answer: <https://biology-forums.com/index.php?topic=1900959>

### Question 220

Where are the straight tubules?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904276>

### Question 221

Progesterone is required during pregnancy to

- a) stimulate the corpus luteum.
- b) ensure relaxation of the uterine myometrium.
- c) increase the flexibility of the pubic symphysis.
- d) decrease glucose usage by the mother while making it more available to the fetus.
- e) help establish the timing of labor and delivery.

Answer: <https://biology-forums.com/index.php?topic=1901257>

### Question 222

Gray matter has its distinctive color due to myelination of axons.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900865>

### Question 223

Which structure in the figure detects touch sensations?

- A
- B
- C
- D

• G

Answer: <https://biology-forums.com/index.php?topic=1902937>

### Question 224

Where is the renal ganglion and renal plexus in the diagram?

- A
- B
- D
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1903925>

### Question 225

In the diagram of a hair root shown, where is the cortex?

- B
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1902910>

### Question 226

Which is a true statement regarding the effects of aging on the brain?

- a) brain mass and conduction velocity stay the same
- b) conduction velocity increases and brain mass decreases
- c) the number of synapses remains constant and conduction velocity remains constant
- d) reflex times increase and brain mass declines
- e) the number of synapses decreases and reflex time decreases

Answer: <https://biology-forums.com/index.php?topic=1900902>

### Question 227

During periods of rest and recovery, the sympathetic activity to glands and smooth muscles predominates over parasympathetic activity.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900914>

### Question 228

Which of the following muscles act(s) to increase the size of the thoracic cavity during inhalation?

1. diaphragm
  2. external intercostals
  3. internal intercostals
- a) 1 only
  - b) 2 only
  - c) 3 only
  - d) 1, 2 & 3
  - e) 1 and 2

Answer: <https://biology-forums.com/index.php?topic=1900759>

### Question 229

Which wave is matched correctly with the hearts activity?

- a) QRS complex atrial repolarization
- b) P wave ventricular repolarization
- c) T wave ventricular depolarization
- d) S-T segment the ventricles are depolarized

Answer: <https://biology-forums.com/index.php?topic=1901010>

### Question 230

Which pairing is matched correctly regarding the structure of an artery?

- a) tunica media thinnest layer, consists of elastic and collagen fibers

- b) tunica intima consists of elastic fibers and smooth muscle fibers
- c) tunica externa consists of simple squamous cells, called exothelium
- d) tunica intima has a basement membrane and an internal elastic lamina
- e) tunica media layer closest to the lumen

Answer: <https://biology-forums.com/index.php?topic=1901052>

### Question 231

Where is the renal ganglion and renal plexus in the diagram?

- A
- B
- D
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1903980>

### Question 232

The term used for an increased memory response to an event is:

- a) synesthesia
- b) long-term potentiation
- c) memory consolidation
- d) plasticity
- e) bradykinesia

Answer: <https://biology-forums.com/index.php?topic=1900935>

### Question 233

Blood cells and plasma begin to develop

1. at 3 weeks post-fertilization outside the embryo from hemangioblasts.
  2. at 5 weeks post-fertilization inside the embryo in the liver.
  3. at 12 weeks post-fertilization in the spleen, red bone marrow, and thymus.
- a) 1 only
  - b) 2 only
  - c) 3 only
  - d) 1 and 2 are correct.
  - e) 1, 2, and 3 are correct.

Answer: <https://biology-forums.com/index.php?topic=1901246>

### Question 234

Where is the vertebral body?

- C
- D
- H
- I
- J

Answer: <https://biology-forums.com/index.php?topic=1903173>

### Question 235

Which region is the hypogastric region?

- (A)
- (B)
- (C)
- (D)
- (E)

Answer: <https://biology-forums.com/index.php?topic=1902850>

### Question 236

The anatomical structure responsible for monitoring the change in length of a muscle is called:

- a) tendon organ

- b) alpha motor neuron
- c) muscle spindle
- d) type II cutaneous mechanoreceptor
- e) free nerve ending

Answer: <https://biology-forums.com/index.php?topic=1900926>

### Question 237

The term quadriceps refers to the shape of a muscle, and indicates this muscle is shaped approximately like a square, with four corners.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900830>

### Question 238

Which statement is true of capillary exchange?

- a) interstitial fluid hydrostatic pressure pushes fluid from the capillaries to the interstitial fluid
- b) blood hydrostatic pressure is lower at the venous end of a capillary
- c) blood colloid osmotic pressure is due to dissolved ions
- d) filtration is the movement from the interstitial fluid into the capillaries
- e) blood hydrostatic pressure is caused by the elasticity of the large arteries

Answer: <https://biology-forums.com/index.php?topic=1901057>

### Question 239

Preganglionic neurons are supplied to the submandibular ganglion by which cranial nerve?

- Oculomotor (III) nerve (cranial nerve III)
- Facial (VII) nerve (cranial nerve VII)
- Glossopharyngeal (IX) nerve (cranial nerve IX)
- Vagus (X) nerve (cranial nerve X)
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1903961>

### Question 240

The pelvic diaphragm is penetrated by the anal canal and the urethra in both sexes, and by the vagina in females.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900845>

### Question 241

Another name for a mechanical ventilator is spirometer.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901111>

### Question 242

What area in the figure represents the volume of air remaining in the lungs after a deep exhalation?

- C
- Hdd
- D
- B
- G

Answer: <https://biology-forums.com/index.php?topic=1904232>

### Question 243

The Sympathetic division is associated with excitement or embarrassment.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900912>

### Question 244

Limb buds develop as outgrowths of mesoderm covered by ectoderm.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901251>

### Question 245

Where is the right bronchiole?

- F
- G
- H
- L
- M

Answer: <https://biology-forums.com/index.php?topic=1904191>

### Question 246

There are several types of abnormal curvatures of the spinal column. Some of them are exaggerations of the normal curve. Kyphosis is an exaggeration of a curve that gives the person a hunchbacked appearance. You sometimes see this hump in elderly women with osteoporosis. Which normal curve is exaggerated in kyphosis?

- a) cervical
- b) thoracic
- c) lumbar
- d) sacral

Answer: <https://biology-forums.com/index.php?topic=1900598>

### Question 247

Which portion of the spinal cord contains the cell bodies of somatic motor neurons and motor nuclei?

Courtesy Michael Ross, University of Florida

- B
- C
- D
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903756>

### Question 248

Which labeled neuron conducts impulses from the thalamus to the primary somatosensory area of the cerebral cortex?

- A
- B
- C
- More than one answer selection is correct.
- None of the answer selections are correct.

Answer: <https://biology-forums.com/index.php?topic=1903993>

### Question 249

This substance gives bile its major pigmentation:

- a) ketone bodies
- b) erythrocytes
- c) casts
- d) bilirubin
- e) glucose

Answer: <https://biology-forums.com/index.php?topic=1877822>

### Question 250

Why do mitochondria need the many folded inner membranes called the cristae?

- a) these membranes are used to store replacement membrane for the mitochondrial surface
- b) these membranes are the location for glycolysis in the cell
- c) to provide a large surface area for the many embedded enzymes involved with aerobic metabolism (production of large amounts of ATP)
- d) to provide a large surface area for detoxification of potentially harmful substances
- e) to provide a large surface area for anaerobic metabolism

Answer: <https://biology-forums.com/index.php?topic=1900421>



### Question 251

In the diagram, where is the foramen ovale?

- C
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1903161>

### Question 252

Which of the following bones is the largest of the three bones that make up the hip bone?

- a) coccyx
- b) sacrum
- c) pubis
- d) ischium
- e) ilium

Answer: <https://biology-forums.com/index.php?topic=1900625>

### Question 253

The term thorax includes the chest and upper limbs of the body.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900610>

### Question 254

Which of the following hormones is produced by the cells marked in the thyroid follicle shown in the histology picture?

Mark Nielsen

- calcitonin
- vasopressin
- triiodothyronine (T3)
- antidiuretic hormone (ADH)
- calcitriol

Answer: <https://biology-forums.com/index.php?topic=1904094>

### Question 255

The adrenal medulla has tissue similarities with the parasympathetic ganglia.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900968>

### Question 256

Which one represents the morula stage?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904301>

### Question 257

Which gland or organ is not strictly classified as an endocrine gland?

- a) thyroid gland
- b) adrenal gland
- c) pancreas
- d) pineal gland
- e) pituitary gland

Answer: <https://biology-forums.com/index.php?topic=1900954>

### Question 258

Which region includes B cells, follicular dendritic cells and macrophages?

- B
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1904158>

### Question 259

The adrenal cortex and adrenal medulla both derive from mesoderm.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900976>

### Question 260

The primary difference between an autonomic reflex arc and a somatic reflex arc is that the former has two motor neurons connecting the CNS to an effector.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900917>

### Question 261

This group of back muscles have their origins on the cervical vertebra, and insert on the first or second ribs. Their action is to elevate these ribs during deep inhalation.

- a) iliocostalis group
- b) transversospinales
- c) spinalis group
- d) splenius muscles
- e) scalenes

Answer: <https://biology-forums.com/index.php?topic=1900782>

### Question 262

Sometimes a persons urine is acidic. What does this indicate about how the body functions?

- a) This indicates the kidneys role in regulating acid-base balance in the body a homeostatic process
- b) Since acidosis (blood pH below 7.35) can seriously harm homeostasis, the body has ways to excrete compounds that would increase the acidity of body fluids.
- c) To maintain homeostasis, regulation of pH of body fluids is an important aspect of normal body functions.
- d) All of the above statements are correct.
- e) None of these are correct. The persons kidneys are damaged.

Answer: <https://biology-forums.com/index.php?topic=1900394>

### Question 263

The two organ systems that regulate and maintain homeostasis are the

- a) cardiovascular and integumentary systems.
- b) nervous and endocrine systems.
- c) cardiovascular and respiratory systems.
- d) respiratory and muscular systems.
- e) urinary and integumentary systems.

Answer: <https://biology-forums.com/index.php?topic=1877752>

### Question 264

Which type of intravenous solution would be recommended for a patient who is severely dehydrated?

- a) an isotonic solution
- b) a hypotonic solution
- c) a hypertonic solution

Answer: <https://biology-forums.com/index.php?topic=1900414>

### Question 265

The head of the femur articulates with what feature of the hip bones to form the hip (coxal) joint?

- a) the obturator foramen
- b) the acetabulum
- c) the ischial tuberosity
- d) the lesser sciatic notch
- e) the pubic crest

Answer: <https://biology-forums.com/index.php?topic=1900634>

### Question 266

What area in the figure is the sum of the vital capacity and residual volume?

- B
- A
- G
- D
- F

Answer: <https://biology-forums.com/index.php?topic=1904202>

### Question 267

In the lab, Kevin mixes NaCl with water. He tests the solution with electrodes attached to a power source and a light bulb. He is surprised to see that the light bulb lights up when the electrodes are lowered into the salt water. He realizes that he has created a solution of positive and negative ions. What is another name for a compound that forms an ionic solution as the NaCl did?

- a) molecule
- b) element
- c) electrolyte
- d) isotope
- e) nonpolar

Answer: <https://biology-forums.com/index.php?topic=1900383>

### Question 268

Damage to which cranial nerve in the diagram will cause the inability of an eyeball to move laterally beyond the midpoint?

- B
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1903775>

### Question 269

Where is the tracheal cartilage?

- J
- I
- H
- G
- F

Answer: <https://biology-forums.com/index.php?topic=1904188>

### Question 270

What specific type of unipolar neuron is shown in the diagram labeled B?

- Type I cutaneous mechanoreceptor (Merkel disc)
- Corpuscle of touch (Meissner corpuscle)
- Lamellated (Pacinian) corpuscle
- nociceptor
- Purkinje cell

Answer: <https://biology-forums.com/index.php?topic=1903460>

### Question 271

Combined oral contraceptives decrease the likelihood of pregnancy by

- a) suppressing FSH and LH
- b) preventing development of a dominant follicle in the ovary.
- c) blocking implantation in the uterus.
- d) inhibiting transport of ova and sperm in the uterine tubes.
- e) all of these choices

Answer: <https://biology-forums.com/index.php?topic=1901231>

### Question 272

At birth, each hip bone is composed of three separate bones which aren't completely fused until the person is in their early 20s.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900649>

### Question 273

Some synovial joints contain special crescent-shaped pads that provide additional shock absorption, and provide for a better fit between the articulating surfaces of the bones. These special pads are called \_\_\_\_\_.

- a) menisci
- b) labra
- c) fat pads
- d) bursae
- e) tendon sheaths

Answer: <https://biology-forums.com/index.php?topic=1900664>

### Question 274

Bones can only assist in providing movement when they're tugged on by the appropriate skeletal muscles.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900568>

### Question 275

The radial groove is a feature of the radius, while the deltoid tuberosity is a roughened area found on the ulna.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900646>

### Question 276

Which structure in the diagram allows for passage of nerves and blood vessels?

- B
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1903177>

### Question 277

In the diagram, which bone is considered the keystone of the cranial floor?

- E
- B
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903155>

### Question 278

Which term describes the study of the functions of body structures?

- a) anatomy
- b) physiology
- c) endocrinology
- d) histology
- e) immunology

Answer: <https://biology-forums.com/index.php?topic=1877749>

### Question 279

Which figure illustrates farsightedness before it has been corrected?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904066>

### Question 280

Which of the labeled structures in the diagram senses touch, pressure and slow vibrations?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903989>

### Question 281

Where are the spinal meninges located?

1. covering the brain
2. covering the vertebral column
3. covering the spinal cord

- a) 1 only
- b) 2 only
- c) 3 only
- d) 1, 2 & 3
- e) only 1 & 3

Answer: <https://biology-forums.com/index.php?topic=1900869>

### Question 282

Identify the auditory ossicles.

- A, B, C
- A, C, G
- A, B, J
- J, C, G
- C, D, G

Answer: <https://biology-forums.com/index.php?topic=1904072>

### Question 283

Which of the following comparisons of the autonomic nervous system (ANS) and the somatic nervous system (SNS) is not true?

- a) the SNS carries information from the special senses
- b) the ANS has sensory receptors called interoceptors
- c) tissues of the ANS can function even if their nerve supply is damaged
- d) the SNS contains motor neurons which are only excitatory
- e) angina pectoris is an example of input from the ANS

Answer: <https://biology-forums.com/index.php?topic=1900903>

### Question 284

A deep indentation found along the medial plane that separates the right and left cerebral hemispheres is called the

- a) septum pellucidum.
- b) transverse fissure.
- c) tentorium cerebelli.
- d) corpus callosum.
- e) longitudinal fissure.

Answer: <https://biology-forums.com/index.php?topic=1877788>

### Question 285

Which cranial nerve in the diagram has an autonomic motor function primarily involved in near vision accommodation and constriction of the pupil?

- A
- B
- C
- D
- F

Answer: <https://biology-forums.com/index.php?topic=1903770>

### Question 286

In the diagram of a hair root shown, where is the dermal root sheath?

- C
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1902911>

### Question 287

Visceral pain coming from the liver and gallbladder is referred to which location(s) in the diagram?

- B
- G
- H
- F
- D

Answer: <https://biology-forums.com/index.php?topic=1904048>

### Question 288

Which cavity contains the internal organs of reproduction?

- (A)
- (B)
- (C)
- (D)
- (E)

Answer: <https://biology-forums.com/index.php?topic=1902849>

### Question 289

If the pathway shown in the diagram is a sympathetic division pathway, which neurotransmitter acts at the effector?

- Norepinephrine
- Acetylcholine
- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1904012>

### Question 290

Which vessel(s) in the diagram are the peritubular capillaries?

- C
- D
- E
- M
- L

Answer: <https://biology-forums.com/index.php?topic=1904273>

### Question 291

Which of the labeled diagrams shows coarctation of the aorta?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904132>

### Question 292

In the diagram, this structure directs cellular activities.

- D
- F
- G
- A
- H

Answer: <https://biology-forums.com/index.php?topic=1902861>

### Question 293

Which of the light micrographs in the following figure shows a type of epithelial tissue whose functions include movement of mucus over their apical surface by ciliary action?

- 1 B
- 2 C
- 3 E
- 1 only
- 2 only
- 3 only
- 2 and 3 only
- All of these Answer choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1902895>

### Question 294

Which of the following is an effect of the thyroid hormones?

- a) increases blood cholesterol
- b) increases carbohydrate synthesis
- c) increases oxygen consumption
- d) decreases actions of the epinephrine and norepinephrine
- e) helps slow down body growth

Answer: <https://biology-forums.com/index.php?topic=1900964>

### Question 295

Peristalsis in the esophagus is controlled by the myenteric plexus.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901142>

### Question 296

Mature connective tissues are all present in a newborn .

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900490>

### Question 297

A person may actually lose heat on a sunny beach when the temperature is 40C (104F) and the humidity is 85% because of

- a) conduction.
- b) convection.
- c) radiation.
- d) evaporation.
- e) dehydration.

Answer: <https://biology-forums.com/index.php?topic=1901180>

### Question 298

A mixed spinal nerve has:

- a) a dorsal and posterior root
- b) two sizes of neurons
- c) a sensory and an afferent component
- d) a posterior and anterior root
- e) a motor and an efferent component

Answer: <https://biology-forums.com/index.php?topic=1900873>

### Question 299

A flat sheet of tissue which covers or lines a body surface (either interior or exterior), and which has both an epithelial and connective tissue layer is called a \_\_\_\_\_.

- a) reticular layer
- b) lamina propria
- c) dermal layer
- d) epithelial membrane
- e) lamellae

Answer: <https://biology-forums.com/index.php?topic=1900477>

### Question 300

The structure labeled A in the diagram belongs to which group of spinal nerves?

- cervical nerves
- thoracic nerves
- lumbar nerves
- sacral nerves
- coccygeal nerves

Answer: <https://biology-forums.com/index.php?topic=1903757>

### Question 301

Which type of shock is caused by inappropriate dilation of the small vessels?

1. anaphylactic shock
2. hypovolemic shock
3. obstructive shock
4. septic shock

- a) 1 only
- b) 2 only
- c) 3 only
- d) 4 only
- e) 1 and 4

Answer: <https://biology-forums.com/index.php?topic=1901066>

### Question 302

Parathyroid hormone (PTH) is able to regulate calcium levels in the blood through a series of steps that provide control through a negative feedback system.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900580>

### Question 303

In the diagram, which panel shows cells that are in interphase?

- 1 A
  - 2 C
  - 3 F
- 1 only
  - 2 only
  - 3 only
  - 1 and 3
  - 1, 2, and 3

Answer: <https://biology-forums.com/index.php?topic=1902867>



### Question 304

Where is the serratus anterior?

- A
- B
- C
- D
- G

Answer: <https://biology-forums.com/index.php?topic=1903430>

### Question 305

Which of the following tissues could be found on or within a bone, such as the humerus?

- a) adipose tissue
- b) nervous tissue
- c) cartilage
- d) osseous tissue
- e) all of these

Answer: <https://biology-forums.com/index.php?topic=1900544>

### Question 306

In the photomicrograph of a portion of thick skin shown below, which layer is the stratum basale?

- A
- B
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1902909>

### Question 307

Fontanelles are areas of dense connective tissue where the bones of the skull are not completely ossified. This is a dangerous and abnormal condition in newborn infants.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900606>

### Question 308

Which of the following is not a hinge joint?

- a) shoulder
- b) elbow
- c) interphalangeal joints
- d) ankle
- e) knee

Answer: <https://biology-forums.com/index.php?topic=1900675>

### Question 309

Which bone articulates with all other cranial bones and provides stability to the cranial floor.

- a) frontal bone
- b) ethmoid bone
- c) sphenoid bone
- d) occipital bone
- e) temporal bone

Answer: <https://biology-forums.com/index.php?topic=1900592>

### Question 310

The mucosa of the vagina consists of

- a) simple squamous epithelium which allow for diffusion of waste products and nutrients.
- b) stratified squamous epithelium which provides some protection against friction.
- c) pseudostratified columnar epithelium which increases secretion of mucus.
- d) transitional epithelium which allows for expansion during childbirth and intercourse.

e) stratified cuboidal epithelium which allows for regular regeneration of the vaginal lining.

Answer: <https://biology-forums.com/index.php?topic=1901226>

### Question 311

Where is the transverse abdominus?

- D
- E
- F
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903432>

### Question 312

Which of the labeled structures in the diagram contains centers that control heart rate and blood pressure?

- A
- B
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1903765>

### Question 313

Which organ is matched incorrectly with either its sympathetic or parasympathetic ganglion?

- a) eye ciliary ganglion
- b) urinary bladder superior mesenteric ganglion
- c) ear otic ganglion
- d) stomach celiac ganglion
- e) heart inferior cervical ganglion

Answer: <https://biology-forums.com/index.php?topic=1900906>

### Question 314

Mullerian-inhibiting hormone in the embryo

- a) is required to begin secretion of testosterone.
- b) stimulates development of the mesonephric duct.
- c) causes apoptosis of cells within the paramesonephric duct.
- d) is active primarily in females.
- e) causes the distal ends of paramesonephric ducts to fuse.

Answer: <https://biology-forums.com/index.php?topic=1901234>

### Question 315

Which statement is not true regarding heart sounds?

- a) S3 occurs during ventricular filling
- b) S2 is louder and a little longer than the first sound
- c) S1 is caused by closing of the AV valves
- d) S4 occurs during atrial filling and is not usually heard
- e) the second sound is due to the SL valves closing

Answer: <https://biology-forums.com/index.php?topic=1901043>

### Question 316

Two solutions are separated by a selectively permeable membrane. Solution A has a higher concentration of solute (dissolved substances) than Solution B. Therefore, solution B will exert more osmotic pressure on its side of the membrane.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900440>

### Question 317

At its most basic level, in a non-dividing cell, a chromosome is a single DNA molecule coiled around some proteins.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900445>

### Question 318

What labeled structure in the figure is the ligamentum arteriosum?

- A
- B
- C
- D

Answer: <https://biology-forums.com/index.php?topic=1904141>

### Question 319

Plasma cells are located in which area in the figure?

- A
- B
- C
- D
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904173>

### Question 320

The central tendon is an aponeurosis of the \_\_\_\_\_, and it fuses to the inferior portion of the pericardium (membrane covering the heart), and pleura (membrane covering each lung).

- a) diaphragm
- b) rectus abdominis
- c) transversus abdominis
- d) internal intercostals
- e) innermost intercostals

Answer: <https://biology-forums.com/index.php?topic=1900761>

### Question 321

The position of an epicondyle in relation to the condyle is that the epicondyle would be inferior to the condyle.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900601>

### Question 322

Which membrane proteins are involved with the transport of molecules that otherwise would be unable to enter the cell?

- a) linker proteins
- b) glycoproteins
- c) carrier proteins
- d) peripheral proteins
- e) receptor proteins

Answer: <https://biology-forums.com/index.php?topic=1900412>

### Question 323

The ribs are \_\_\_\_\_ to the sternum.

- lateral
- medial
- proximal
- distal
- superior

Answer: <https://biology-forums.com/index.php?topic=1902839>

### Question 324

Which of the following type of neurons have their cell bodies in the spinal cord or brain stem and their axons terminating in neuromuscular junctions?

- a) upper motor neurons
- b) lower motor neurons
- c) somatic sensory neurons
- d) preganglionic autonomic neurons

e) postganglionic autonomic neurons

Answer: <https://biology-forums.com/index.php?topic=1877792>

### Question 325

Somites are cube-shaped masses of mesoderm that give rise to the limb buds of the embryo.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900659>

### Question 326

Where are mesenchymal cells found?

- a) near the basement membranes of epithelial tissues
- b) in the upper layer of stratified tissues
- c) in embryonic connective tissues
- d) in between the fibers of loose connective tissues
- e) these cells give rise to muscle tissue

Answer: <https://biology-forums.com/index.php?topic=1900470>

### Question 327

Where is the subdural space?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903466>

### Question 328

Which of the following muscle groups would be more likely to have many small motor units (one motor neuron, and just a few muscle fibers under its control)?

- a) the muscles that control eye movement
- b) the postural muscles that control standing
- c) the muscles that control the many movements of the hands
- d) all of these choices would have many small motor units
- e) only a and c would have many small motor units

Answer: <https://biology-forums.com/index.php?topic=1900720>

### Question 329

Which term refers to the sum of all chemical processes that occur in the body?

- a) metabolism
- b) anabolism
- c) catabolism
- d) auscultation
- e) palpation

Answer: <https://biology-forums.com/index.php?topic=1877751>

### Question 330

The primary difference between simple and facilitated diffusion is that facilitated diffusion requires a membrane protein to act as a channel or carrier for a substance while simple diffusion means substances can slip through the lipid bilayer without a channel or carrier being needed.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900439>

### Question 331

Where does the tibialis anterior insert onto the foot?

- a) by means of the calcaneal tendon
- b) the interosseus membrane
- c) the distal phalanx of the great toe
- d) the first metatarsal and the medial cuneiform
- e) the base of the fifth metatarsal

Answer: <https://biology-forums.com/index.php?topic=1900789>

### Question 332

Which of the following muscles have an insertion on the xiphoid process?

1. rectus abdominis
2. internal and external obliques
3. transversus abdominis

- a) 1 only
- b) 2 only
- c) 3 only
- d) 1 and 3
- e) 2 and 3

Answer: <https://biology-forums.com/index.php?topic=1900757>

### Question 333

Which type of depression results in an individual with a manic-depressive illness.

- a) major depression.
- b) dysthymia.
- c) bipolar disorder.
- d) seasonal affective disorder.
- e) all of these disorders.

Answer: <https://biology-forums.com/index.php?topic=1877786>

### Question 334

Which of the following labeled structures in the diagram is a site of red blood cell production in adult bones?

- A
- B
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1902962>

### Question 335

Of the basic tissue types, which types have excitable cells?

- a) epithelia and connective tissues
- b) connective and nervous tissues
- c) muscle and nervous tissues
- d) epithelia and nervous tissues

Answer: <https://biology-forums.com/index.php?topic=1900484>

### Question 336

Which of the light micrographs in the figure below shows the type of epithelial tissue that lines the kidney tubules?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902893>

### Question 337

The nerve labeled A in the diagram arises from which plexus?

- cervical plexus
- brachial plexus
- lumbar plexus
- sacral plexus
- coccygeal plexus

Answer: <https://biology-forums.com/index.php?topic=1903760>

### Question 338

In the diagram shown below, where is the apical surface of the epithelial cell?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902876>

### Question 339

The fibula is often used to provide bone for a bone graft to replace missing bone in another part of the body. Use of the fibula will not interfere with walking or even running, because it is not a weight-bearing bone.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900655>

### Question 340

The development of the ability to carry out immune responses by certain cells is called:

- a) immunology
- b) immunocompetence
- c) memory
- d) specificity
- e) reactivity

Answer: <https://biology-forums.com/index.php?topic=1901082>

### Question 341

Which of the labeled cells in the diagram is a neuroglial cell that removes debris and acts as a phagocyte?

- A
- B
- C
- D
- F

Answer: <https://biology-forums.com/index.php?topic=1903463>

### Question 342

Which of the following does not describe the visual pathway as light enters the eye?

- a) visual information from the right half of the visual field goes to the left side of the brain
- b) all axons from the temporal half of the retina cross in the optic chiasm
- c) all axons of the retina exit the eye at the optic disc
- d) optic radiations connect the thalamus to the primary visual area in the cortex

Answer: <https://biology-forums.com/index.php?topic=1900944>

### Question 343

In extending the arm, the role of the triceps brachii is to act as the antagonist.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900798>

### Question 344

Which labeled bone in the diagram of the foot is the only bone of the foot that articulates with the fibula and tibia?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903202>

### Question 345

Which list contains only facial bones?

- a) lacrimal bones, zygomatic bones, mandible, palatine bones
- b) temporal bones, frontal bone, palatine bones, nasal bones
- c) sphenoid bone, ethmoid bone, temporal bones, lacrimal bones
- d) occipital bone, maxillae, vomer, zygomatic bones
- e) lacrimal bones, sphenoid bone, vomer, mandible

Answer: <https://biology-forums.com/index.php?topic=1900586>

### Question 346

A molecule of oxygen, O<sub>2</sub>, is a good example of a compound.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900403>

### Question 347

Which of the labeled structures in the diagram of the trigeminothalamic pathway is the trigeminothalamic tract?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904037>

### Question 348

Nearly all muscles of the body develop from an early embryonic layer of cells called the mesoderm.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900730>

### Question 349

This muscle group makes up the posterior compartment (a group of muscles, nerves and blood vessels with a similar purpose)of the thigh, and is innervated by branches of the sciatic nerve). This group is also a powerful extensor of the thigh.

- a) quadriceps femoris
- b) hamstrings
- c) adductors magnus, longus and brevis
- d) obturator externus, and superior and inferior gemellus
- e) iliopsoas muscle

Answer: <https://biology-forums.com/index.php?topic=1900785>

### Question 350

The \_\_\_\_\_ is/are the longest of the male reproductive system ducts.

- a) straight tubules
- b) rete testes
- c) ductus epididymis
- d) ductus deferens
- e) ejaculatory duct

Answer: <https://biology-forums.com/index.php?topic=1901212>

### Question 351

Which of the following places the events of the Krebs cycle in the correct order, beginning with entry of the acetyl group and ending with dehydrogenation?

- a) oxidative decarboxylation, isomerization, oxidative decarboxylation, substrate-level phosphorylation, dehydrogenation
- b) oxidative decarboxylation, isomerization, oxidative decarboxylation, substrate-level phosphorylation, dehydrogenation
- c) isomerization, oxidative decarboxylation, oxidative decarboxylation, substrate-level phosphorylation, dehydrogenation, hydration, dehydrogenation
- d) isomerization, oxidative decarboxylation, substrate-level phosphorylation, oxidative decarboxylation, dehydrogenation
- e) isomerization, oxidative decarboxylation, substrate-level phosphorylation, oxidative decarboxylation, dehydrogenation

Answer: <https://biology-forums.com/index.php?topic=1901166>

### Question 352

If the hip is the fulcrum, and the muscles of the thigh represent the effort, and the weight of the leg provides the resistance (or load). This is a good example of a third class lever.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900794>

### Question 353

Which structures are dermal papillae?

- A
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1902922>

### Question 354

An infant with severe diarrhea and vomiting may experience greater problems with fluid, electrolyte, and acid-base balance than an adult with the same disorder because

- more of an infants body mass is water.
- infants have a slower metabolic rate.
- the less developed kidney function in infants causes increased excretion of acid.
- body surface area: body volume is less in infants than in adults.
- newborns have a tendency toward metabolic alkalosis to start with.

Answer: <https://biology-forums.com/index.php?topic=1901194>

### Question 355

The maxillary branch of this labeled cranial nerve is found in the area where dentists apply anesthetic drugs for numbing the upper jaw.

- E
- G
- H
- I
- J

Answer: <https://biology-forums.com/index.php?topic=1903773>

### Question 356

Sodium-potassium pumps are examples of what type of cellular transport?

- primary active transport
- secondary active transport
- transport in vesicles
- facilitated diffusion
- hypertonic transport

Answer: <https://biology-forums.com/index.php?topic=1900415>

### Question 357

Tissue regeneration is unlikely to leave a scar if parenchymal cells (the functional cells of the damaged region) are involved with repair.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900495>

### Question 358

When blood from a normal adult is centrifuged as shown in the figure, which of the following components occupies the greatest volume?

- plasma
- red blood cells
- platelets
- buffy coat
- white blood cells

Answer: <https://biology-forums.com/index.php?topic=1904114>

### Question 359

Where are the palatine tonsils?

- E



- F
- R
- U
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904179>

### Question 360

What is E pointing to?

- Soft palate
- Ethmoid bone
- Hard palate
- Nasal septum
- Air cells

Answer: <https://biology-forums.com/index.php?topic=1904185>

### Question 361

Blood plasma and interstitial fluid are both components of the extracellular fluid.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900978>

### Question 362

Which labeled structure in the figure is precapillary sphincter?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904151>

### Question 363

Which cranial nerve in the diagram is involved with speech and swallowing and has a purely motor function?

- H
- I
- J
- K
- L

Answer: <https://biology-forums.com/index.php?topic=1903780>

### Question 364

Where are the fetal blood vessels?

- C
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1904309>

### Question 365

Which is secreted by osteoblasts during bone deposition?

- a) calcium
- b) collagen fibers
- c) hydroxyapatite
- d) vitamin D
- e) calcium phosphate

Answer: <https://biology-forums.com/index.php?topic=1900550>

### Question 366

Which of the following neurotransmitters does not bind to adrenergic receptors?

- a) noradrenaline
- b) acetylcholine
- c) epinephrine
- d) norepinephrine
- e) adrenaline

Answer: <https://biology-forums.com/index.php?topic=1900910>

### Question 367

Mario is standing in line to buy movie tickets. His arms are relaxed at his sides, and the palms of his hands are facing the sides of his legs. He is standing in the anatomical position.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900377>

### Question 368

The flight-or-flight response produces all of the following except:

- a) increased heart rate and force of contraction
- b) dilation of vessels to the digestive organs
- c) increase in blood pressure
- d) decreased urinary activity
- e) increased glycogenolysis

Answer: <https://biology-forums.com/index.php?topic=1900974>

### Question 369

Which statement is false in reference to the autonomic ganglia?

- a) the prevertebral ganglia lie close to the abdominal arteries
- b) the terminal ganglia lie near the bellies of skeletal muscles
- c) the sympathetic chain ganglia lie close to the vertebrae on each side
- d) the sympathetic preganglionic fibers of the sympathetic chain are very short
- e) the terminal ganglia are parasympathetic ganglia

Answer: <https://biology-forums.com/index.php?topic=1900907>

### Question 370

Thinner hair may be lacking what structural component of a typical hair?

- a) medulla
- b) cortex
- c) cuticle
- d) root
- e) follicle

Answer: <https://biology-forums.com/index.php?topic=1900513>

### Question 371

Which white blood cell has a primary responsibility to destroy newly formed tumor cells.

- a) T cells
- b) basophils
- c) natural killer cells
- d) B cells
- e) neutrophils

Answer: <https://biology-forums.com/index.php?topic=1900989>

### Question 372

Which structure provides disease resistance within the lungs?

- A
- B
- C
- D
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904197>

### Question 373

Where is the greater splanchnic nerve in the diagram?

- A
- B
- C
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1903982>

### Question 374

Which plexus or nerve shown in the diagram supplies the renal arteries?

- B
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1903928>

### Question 375

In the diagram of skin shown below, where is the arrector pili muscle?

- C
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1902906>

### Question 376

Which of the labeled structures in the diagram is the thalamus?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903764>

### Question 377

Of the four basic tissue types, which one is able to generate electrical signals that can trigger muscles contractions or glandular secretions?

- epithelial tissue
- connective tissue
- muscular tissue
- nervous tissue

Answer: <https://biology-forums.com/index.php?topic=1900456>

### Question 378

A hemopoietic growth factor:

- is a hormone that regulates bone growth
- stimulates absorption of nutrients in the small intestine
- is a hormone that aids in proliferation of progenitor cells
- are lymphoid cells used in the immune systems defense mode
- are precursor cells

Answer: <https://biology-forums.com/index.php?topic=1900983>

### Question 379

The parietal peritoneum covers the stomach, but does not cover the kidneys.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901134>

### Question 380

Injury to the common fibular nerve results in a condition known as:

- a) thoracic outlet syndrome
- b) calcaneovalgus
- c) winged scapula
- d) foot drop

Answer: <https://biology-forums.com/index.php?topic=1900879>

### Question 381

An oral contraceptive pill targeting gonadotropin-releasing hormone in males could decrease fertility while maintaining libido and other testosterone-driven functions.

[b] True or False? [ /b]

Answer: <https://biology-forums.com/index.php?topic=1901233>

### Question 382

The main adhesive protein of connective tissues is \_\_\_\_\_ .

- a) chondroitin sulfate
- b) fibronectin
- c) hyaluronic acid
- d) keratin sulfate
- e) proteoglycans

Answer: <https://biology-forums.com/index.php?topic=1900471>

### Question 383

Which labeled structure in the figure is a metarteriole?

- A
- B
- D
- F
- E

Answer: <https://biology-forums.com/index.php?topic=1904149>

### Question 384

After working a 12 hour shift at the hospital Louisa comes home and lies down on her bed. She is lying on her back looking up at the ceiling with her head resting on her arms. What is her body position?

- a) Prone
- b) Anatomical position
- c) Supine
- d) Lateral
- e) Medial

Answer: <https://biology-forums.com/index.php?topic=1900366>

### Question 385

Where is the sartorius?

- A
- B
- C
- D
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1903440>

### Question 386

Depending on how specialized a type of muscle tissue is, the muscle fibers or cells of that tissue will have varied abilities to regenerate (healing and production of new cells). What type of muscle tissue has the greatest ability to regenerate?

- a) skeletal, cardiac and smooth muscle all have similar abilities to regenerate
- b) only skeletal and cardiac muscle cells can undergo limited regeneration
- c) only cardiac and smooth muscle cells can undergo regeneration

d) although all muscle cells can undergo some regeneration, only skeletal muscle fibers can do it easily and frequently, especially when we regularly exercise

e) smooth muscle cells have the greatest ability to regenerate

Answer: <https://biology-forums.com/index.php?topic=1900731>

### Question 387

In the diagram, what would happen to the concentration of C if the concentration of A increases?

- increases
- decreases
- no change

Answer: <https://biology-forums.com/index.php?topic=1902857>

### Question 388

Atoms and molecules are part of which level of organization in the human body?

- a) Chemical
- b) Cellular
- c) Tissue
- d) Organ
- e) System

Answer: <https://biology-forums.com/index.php?topic=1900358>

### Question 389

In the diagram shown below, which cellular junction is a tight junction?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902875>

### Question 390

In the diagram, which structure(s) moves towards the center of the sarcomere (closer together) when the fiber contracts?

- A
- D
- J
- Both A and D.
- None of these are correct.

Answer: <https://biology-forums.com/index.php?topic=1903388>

### Question 391

In the figure shown, which light micrograph shows reticular connective tissue?

- J
- C
- E
- F
- H

Answer: <https://biology-forums.com/index.php?topic=1902885>

### Question 392

Which list includes muscles that are responsible for facial expressions?

- a) deltoid, pectoralis major, serratus anterior
- b) rectus abdominis, internal oblique, transversus abdominis
- c) serratus anterior, external intercostals, internal intercostals
- d) levator scapulae, rhomboid minor, subscapularis
- e) zygomaticus major, risorius, platysma

Answer: <https://biology-forums.com/index.php?topic=1900744>

### Question 393

Smaller organic molecules such as glucose or amino acids can be combined into larger macromolecules. What do we call the smaller molecules from which the macromolecules are built?

- a) Ionic compounds
- b) fatty acids
- c) polymers
- d) monomers
- e) polar molecules

Answer: <https://biology-forums.com/index.php?topic=1900398>

### Question 394

Which of the following nerves controls most of the muscles of the tongue?

- a) trigeminal (V) nerve
- b) facial (VII) nerve
- c) hypoglossal (XII) nerve
- d) C1-C3 of the spinal nerves
- e) trochlear (IV) nerve

Answer: <https://biology-forums.com/index.php?topic=1900753>

### Question 395

What do colored regions on body's surface in the diagram represent?

- Dermatomes
- Areas of referred pain
- Regions of nociceptors
- Areas supplied by the primary somatosensory area
- Motor nuclei

Answer: <https://biology-forums.com/index.php?topic=1903937>

### Question 396

All of the following affect the rate of pulmonary and systemic gas exchange EXCEPT

- a) external air temperature.
- b) partial pressure difference of the gases.
- c) surface area available for gas exchange.
- d) diffusion distance.
- e) molecular weight and solubility of the gases.

Answer: <https://biology-forums.com/index.php?topic=1901119>

### Question 397

Where is the cardiac plexus in the figure?

- A
- B
- H
- I
- J

Answer: <https://biology-forums.com/index.php?topic=1904008>

### Question 398

What is the name of the serous membrane in closest proximity to the lungs?

- a) parietal pleura
- b) visceral pleura
- c) parietal pericardium
- d) visceral pericardium
- e) mediastinum

Answer: <https://biology-forums.com/index.php?topic=1877761>

### Question 399

Which structure within the ampulla contains hair cells that are involved in dynamic equilibrium?

- a) cupola
- b) macula
- c) otolithic membrane
- d) crista
- e) vestibular apparatus

Answer: <https://biology-forums.com/index.php?topic=1900948>

#### Question 400

An injury to a joint that alters the articular surfaces of the bones of the joint may affect the range of motion (ROM) of that joint. Which factor that influences range of motion is the most likely one that has been negatively affected in this situation?

- a) structure or shape of the articulating bones
- b) strength and tension of the joint ligaments
- c) arrangement and tension of the muscles
- d) contact of soft parts
- e) hormones

Answer: <https://biology-forums.com/index.php?topic=1900678>

#### Question 401

The thickest wall in the heart due to its increased work load is the:

- a) left atrium
- b) right ventricle
- c) interventricular septum
- d) left ventricle
- e) right atrium

Answer: <https://biology-forums.com/index.php?topic=1901001>

#### Question 402

During the contraction cycle, ATP attaches to

- a) actin
- b) troponin
- c) myosin
- d) tropomyosin
- e) none of these choices

Answer: <https://biology-forums.com/index.php?topic=1900712>

#### Question 403

It would not be possible to raise the arm above the head if the scapula could not be elevated to move with the humerus.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900847>

#### Question 404

Where is the pia mater?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903468>

#### Question 405

A low count of which of the white blood cells shown in the figure may indicate radiation exposure, or systemic lupus erythematosus?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904121>

### Question 406

What structure in the diagram is the only place on a long bone NOT covered by the periosteum?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902948>

### Question 407

Which of the labeled structures in the diagram is a lamellated corpuscle?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903936>

### Question 408

What region does the superior cervical ganglion primarily serve?

- Abdominal
- Pelvic
- Skin
- Head
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1903783>

### Question 409

Where is the rhomboid major?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903434>

### Question 410

Lymph flowing from the afferent lymphatic vessel will travel next to which structure in the figure?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904167>

### Question 411

In the womb, nails develop before hair follicles, but both are present by about the 12th week.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900540>

### Question 412

Which of the following muscles is known as the tailors muscle because it helps you cross your legs so that you could sit with the heel of one limb resting on the knee of the other limb (in centuries past, sitting with crossed legs was the way tailors, makers of clothing, would sit to do their sewing).

- a) sartorius
- b) gracilis



- c) adductor longus
- d) vastus intermedius
- e) semitendinosus

Answer: <https://biology-forums.com/index.php?topic=1900787>

### Question 413

Which epidermal layer marks the transition between metabolically active cells of lower layers and the dead layers of keratinocytes of the upper layers.

- a) stratum corneum
- b) stratum lucidum
- c) stratum granulosum
- d) stratum spinosum
- e) stratum basale

Answer: <https://biology-forums.com/index.php?topic=1900503>

### Question 414

Which of the following is not an epithelial membrane?

- a) mucous membrane
- b) serous membrane
- c) synovial membrane
- d) cutaneous membrane
- e) lamina propria

Answer: <https://biology-forums.com/index.php?topic=1900478>

### Question 415

What is the function(s) of the nervous system?

- a) detecting stimuli
- b) processing information
- c) sending a response to muscles or glands
- d) all of these choices

Answer: <https://biology-forums.com/index.php?topic=1900864>

### Question 416

A body builder is doing curls, a type of arm exercise, with hand weights. In a curl, the body builder bends his arm and brings the weight closer to his or her shoulder. What type of movement is this?

- a) rotation
- b) extension
- c) flexion
- d) abduction
- e) hyperextension

Answer: <https://biology-forums.com/index.php?topic=1900666>

### Question 417

What area in the figure represents the volume of a normal breath?

- B
- A
- G
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1904205>

### Question 418

The cells of the stratum basale become more metabolically active and increase their rate of cell division when upper layers of the epidermis are stripped away due to abrasions or burns.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900527>

### Question 419

In the diagram, where is the mastoid process?

- J
- K
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903157>

### Question 420

Which figure exhibits concentric contraction of the biceps brachii muscle?

- A
- B
- C
- none of these choices

Answer: <https://biology-forums.com/index.php?topic=1903396>

### Question 421

Damage to which of the cranial nerves in the diagram would result in strabismus?

- A
- B
- C
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1903771>

### Question 422

Which contains the spinal cord?

- (A)
- (B)
- (C)
- (D)
- (E)

Answer: <https://biology-forums.com/index.php?topic=1902848>

### Question 423

Which of the following is not true of lymph and the lymphatic system?

- a) it returns excess interstitial fluid to the blood
- b) it responds to certain microbes and abnormal cells
- c) lymph is found in the intercellular fluid
- d) it carries fat-soluble vitamins
- e) lymph is a relatively clear liquid

Answer: <https://biology-forums.com/index.php?topic=1901072>

### Question 424

Which of the following may be used to treat urinary stress incontinence?

- a) an episiotomy
- b) Kegel exercises
- c) RICE therapy
- d) faciotomy
- e) prosthetic shoe inserts

Answer: <https://biology-forums.com/index.php?topic=1900765>

### Question 425

Which cell in the figure contains a diploid nucleus?

- A
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1904292>

### Question 426

All of the following are true of lymphatic vessels except:

- a) they are not found in cartilage
- b) are called lacteals in the mammary glands
- c) have thinner walls than veins
- d) lie in the subcutaneous tissue of the skin
- e) have more valves than veins

Answer: <https://biology-forums.com/index.php?topic=1901073>

### Question 427

A skeletal muscle may undergo tetanus but cardiac muscle cannot.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901007>

### Question 428

What structure is also referred to as the Adam's Apple?

- G
- H
- I
- J
- K

Answer: <https://biology-forums.com/index.php?topic=1904176>

### Question 429

By age 20, nearly everyone has some evidence of osteoarthritis in their joints.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900701>

### Question 430

Which of the joints shown in the figure only permits back-and-forth and side-to-side movements between the articulating bones?

- A
- B
- C
- Both A and B
- Both A and C

Answer: <https://biology-forums.com/index.php?topic=1903214>

### Question 431

Skeletal muscle is found in the muscularis of the \_\_\_\_\_, but not in the muscularis of the \_\_\_\_\_.

- a) laryngopharynx; superior portion of the esophagus.
- b) tongue; oropharynx.
- c) inferior portion of the esophagus; laryngopharynx.
- d) middle portion of the esophagus; small intestine
- e) small intestine; laryngopharynx.

Answer: <https://biology-forums.com/index.php?topic=1901131>

### Question 432

Where is the left vagus (X) nerve in the diagram?

- A
- C
- D
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1903976>

### Question 433

Which of the labeled structures contains cerebral spinal fluid?

Dissection: Shawn Miller

Photograph: Mark Nielsen

- A
- D
- E
- F
- All of these choices

Answer: <https://biology-forums.com/index.php?topic=1903744>

### Question 434

The nucleus of a cell contains one or more of these structures that are the site of production of ribosomes.

- a) histones
- b) nucleolus
- c) chromatin
- d) nucleosome
- e) centrosome

Answer: <https://biology-forums.com/index.php?topic=1900422>

### Question 435

The cells of the human body can differ in size and shape, and some can even alter their shape. This is an example of cellular diversity.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900452>

### Question 436

Which of the following best describes the events occurring at point B in the diagram of deep wound healing shown below?

- Blood clot is forming.
- New collagen fibers are forming.
- Damaged blood vessels are being repaired.
- Epithelium is migrating across wound.
- Scar tissue is forming.

Answer: <https://biology-forums.com/index.php?topic=1902918>

### Question 437

This joint is a complex and weight-bearing joint, and is the most frequently injured joint in the body. The articular surfaces of the bones do not have complementary surfaces, so the stability of the joint depends mostly on its ligaments and the muscles that move the joint.

- a) the sacroiliac joint
- b) the shoulder joint
- c) the hip joint
- d) the knee joint
- e) the pubic symphysis

Answer: <https://biology-forums.com/index.php?topic=1900686>

### Question 438

Which labeled blood vessel in the diagram is an artery carrying deoxygenated blood?

- A
- B
- C
- E
- I

Answer: <https://biology-forums.com/index.php?topic=1904138>

### Question 439

All of the following statements about a blastocyst are true EXCEPT:

- a) develops about 5 days after fertilization.

- b) still surrounded by the zona pellucida.
- c) comprised of blastomeres reorganized around the blastocyst cavity.
- d) still about the size of the original zygote.
- e) organized as embryoblast and trophoblast.

Answer: <https://biology-forums.com/index.php?topic=1901238>

#### Question 440

Which of the cervical vertebrae contain a unique process that is responsible for the ability to move your head from side to side signifying "no"?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903171>

#### Question 441

Heart tissue develops from ectoderm.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901051>

#### Question 442

Which structure in the figure is the cisterna chyli?

- J
- C
- F
- H
- A

Answer: <https://biology-forums.com/index.php?topic=1904163>

#### Question 443

Suri goes to her family doctor, tells her that she has a headache and she feels nauseated. The doctor checks Suris temperature and finds that she has a fever. In the above situation, is Suris headache a symptom of an illness, while the fever is a sign of illness.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900376>

#### Question 444

Which of the neurons in the diagram would most likely pick up an itch sensation?

- A
- B
- C
- Both A and B
- All of these choices

Answer: <https://biology-forums.com/index.php?topic=1903930>

#### Question 445

What type of nervous system pathway is shown in the figure?

- Somatic motor pathway
- Somatic sensory pathway
- Autonomic motor pathway
- Autonomic sensory pathway
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904011>

#### Question 446

Which neurotransmitter is released at the gland by the preganglionic neuron in the diagram?

- Norepinephrine
- Acetylcholine
- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1903918>

### Question 447

The amount of blood ejected from either ventricle every minute is called:

- a) stroke volume
- b) end-diastolic volume
- c) afterload
- d) cardiac output
- e) heart rate

Answer: <https://biology-forums.com/index.php?topic=1901044>

### Question 448

The general adaptation syndrome (GAS) is primarily regulated by the pituitary gland.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900973>

### Question 449

This muscle, which is found in the neck, functions to elevate the hyoid bone and help press the tongue against the roof of the mouth during swallowing.

- a) mylohyoid
- b) sternothyroid
- c) sternocleidomastoid
- d) digastric
- e) masseter

Answer: <https://biology-forums.com/index.php?topic=1877782>

### Question 450

Differences in skin pigmentation are due to the number of melanocytes in the basal layer of the skin. People with darker skin have many more melanocytes than people with paler skin.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900532>

### Question 451

In MyPlate, the quantity of foods to be consumed from each group should be in which of the following orders (most to least)?

- a) vegetables, milk, grains, meat and beans, oils
- b) grains, vegetables, milk, fruits, meat and beans, oils
- c) vegetables, grains, milk, fruits, meat and beans, oils
- d) grains, vegetables, fruits, milk, meat and beans, oils
- e) vegetables, grains, fruits, milk, meat and beans, oils

Answer: <https://biology-forums.com/index.php?topic=1901183>

### Question 452

Which structures in the figure are sensitive to warmth, coolness and itching?

- A
- G
- F
- H
- J

Answer: <https://biology-forums.com/index.php?topic=1902936>

### Question 453

Briefly describe what is happening in each of the numbered stages of intramembranous ossification as observed in a child's skull shown in the diagram below.

Answer: <https://biology-forums.com/index.php?topic=1902958>

### Question 454

The auditory pathway ends in Brodmann's area 17 in the superior temporal gyrus of the cerebral cortex.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900947>

### Question 455

While the transverse arch of the foot involves several tarsals and the bases of the metacarpals, which statement is correct about the longitudinal arch?

- a) both the medial and lateral parts of the arch begin at the talus
- b) the medial part begins at the base of all five of the metatarsals
- c) the medial part of the arch begins at the calcaneus, while the lateral part begins at the talus
- d) the longitudinal arch consists only of the five metatarsal bones
- e) both the medial and lateral parts of the arch begin at the calcaneus

Answer: <https://biology-forums.com/index.php?topic=1900637>

### Question 456

Where is the masseter?

- A
- B
- G
- I
- E

Answer: <https://biology-forums.com/index.php?topic=1903404>

### Question 457

Anosmia may result from head injuries in which the cribriform plate of the ethmoid bone is fractured. This condition results in impaired function of which cranial nerve in the diagram?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903767>

### Question 458

Which muscle would be important to a ballerina's ability to plantar flex the foot (commonly called pointing the toes)?

- a) soleus
- b) flexor hallucis longus
- c) tibialis posterior
- d) popliteus
- e) extensor digitorum longus

Answer: <https://biology-forums.com/index.php?topic=1900790>

### Question 459

The skin is composed of both a superficial epidermis and a deeper dermis. The epidermis is highly vascularized, while the dermis is avascular.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900526>

### Question 460

The nerve labeled B in the diagram arises from which plexus?

- cervical plexus
- brachial plexus
- lumbar plexus
- sacral plexus
- coccygeal plexus

Answer: <https://biology-forums.com/index.php?topic=1903761>

### Question 461

In the diagram of the ulna and radius, where is the radial tuberosity?

- A
- B
- E
- F
- None of these choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1903190>

### Question 462

Puberty in both males and females is marked by bursts of secretion of luteinizing and follicle-stimulating hormones.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901235>

### Question 463

Serotonin is an example of a(n) \_\_\_\_\_ neurotransmitter

- a) biogenic amine
- b) amino acid
- c) catecholamine
- d) neuropeptide

Answer: <https://biology-forums.com/index.php?topic=1900868>

### Question 464

Which of the following bones (marked in the diagram) contains a depression which houses the endocrine gland shown in the diagram?

- maxilla
- sphenoid bone
- mandible
- ethmoid bone
- temporal bone

Answer: <https://biology-forums.com/index.php?topic=1904093>

### Question 465

The atria receive blood from all of the following except:

- a) pulmonary veins
- b) superior vena cava
- c) coronary sinus
- d) inferior vena cava
- e) all of these choices supply blood to the atria

Answer: <https://biology-forums.com/index.php?topic=1901000>

### Question 466

Which figure exhibits a contraction of the biceps brachii muscle in which its length increases?

- A
- B
- C
- none of these choices

Answer: <https://biology-forums.com/index.php?topic=1903397>

### Question 467

What is line D pointing to?

- Thyrohyoid membrane
- Corniculate cartilage
- Cricothyroid ligament
- Cricoid cartilage
- Tracheal cartilage



Answer: <https://biology-forums.com/index.php?topic=1904186>

### Question 468

The quadriceps tendon is the strongest tendon in the body.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900859>

### Question 469

Symphyses are a type of cartilaginous joint. All symphyses occur at the midline of the body, and not in the extremities.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900690>

### Question 470

Which of the following perineal muscle(s) is (are) not innervated by the perineal branch of the pudendal nerve of the sacral plexus?

1. external urethral sphincter
  2. deep transverse perineal muscle
  3. external anal sphincter
- a) 1 only
  - b) 2 only
  - c) 3 only
  - d) 1, 2 & 3
  - e) 1 and 3

Answer: <https://biology-forums.com/index.php?topic=1900766>

### Question 471

Which cranial nerve in the diagram causes heart rate to decrease?

- H
- I
- J
- K
- L

Answer: <https://biology-forums.com/index.php?topic=1903779>

### Question 472

The function of \_\_\_\_\_ is to store triglycerides.

- a) mast cells
- b) fibroblasts
- c) plasma cells
- d) adipocytes
- e) macrophages

Answer: <https://biology-forums.com/index.php?topic=1900472>

### Question 473

As you smell food, your mouth begins to water and your stomach rumbles. This signals the beginning of the gastric phase of digestion.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901160>

### Question 474

What does line G point to?

- Pylorus
- Pyloric sphincter
- Rugae
- Pyloric antrum
- Greater curvature

Answer: <https://biology-forums.com/index.php?topic=1904244>

### Question 475

If you wanted to design a tissue that restricted the movement of water and other molecules between adjacent cells, which type of junction would you

use to connect the cells?

- a) tight junctions
- b) gap junctions
- c) desmosomes
- d) hemidesmosomes
- e) adherens junctions

Answer: <https://biology-forums.com/index.php?topic=1900459>

### Question 476

Where is the esophageal plexus in the diagram?

- A
- B
- D
- C
- G

Answer: <https://biology-forums.com/index.php?topic=1904019>

### Question 477

What type of nervous system pathway is shown in this figure?

- Somatic motor pathway
- Somatic sensory pathway
- Autonomic motor pathway
- Autonomic sensory pathway
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1903781>

### Question 478

Which of the cells in the diagram will increase the number of nuclear lobes as they age?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904106>

### Question 479

Which of the following regions of bone would not undergo bone remodeling as frequently as the other regions?

- a) spongy bone
- b) compact bone
- c) bone subjected to new stresses
- d) damaged bone
- e) all of these have similar rates of remodeling

Answer: <https://biology-forums.com/index.php?topic=1900557>

### Question 480

Which vessel in the diagram is the afferent arteriole?

- C
- D
- E
- F
- L

Answer: <https://biology-forums.com/index.php?topic=1904270>

### Question 481

The muscle of the posterior abdominal wall play an important role in forced exhalation, providing muscular force for urination and defecation, and in helping to expel the infant during childbirth.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900840>

### Question 482

The largest blood reservoir when the body is at rest is found in the:

- a) pulmonary blood vessels
- b) arterioles
- c) arteries
- d) heart
- e) veins

Answer: <https://biology-forums.com/index.php?topic=1901054>

### Question 483

Which part of the clavicle articulates with the manubrium?

- A
- B
- C
- D
- None of these choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1903179>

### Question 484

Muscles act on bones to produce movement. The bones act as levers and the joints act as \_\_\_\_\_.

- a) the load
- b) the resistance
- c) the fulcrum
- d) the force
- e) the effort

Answer: <https://biology-forums.com/index.php?topic=1900733>

### Question 485

Most people can see and feel the bony prominences on the medial and lateral sides of the ankles. What bone features and bones form these two prominences?

- a) the medial malleolus of the tibia, and the lateral malleolus of the fibula
- b) the medial and lateral condyles of the tibia
- c) the lateral malleolus of the fibular, and the talus bone
- d) the medial malleolus of the tibia, and the talus bone
- e) the talus and the calcaneus bones

Answer: <https://biology-forums.com/index.php?topic=1900636>

### Question 486

In the diagram, where is the osteon?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902954>

### Question 487

Which of the following represents the correct list of superficial anterior (flexor) compartment muscles from lateral to medial?

- a) flexor carpi radialis, palmaris longus, flexor carpi ulnaris, flexor digitorum superficialis (deep to other three muscles)
- b) flexor digitorum profundus, flexor pollicis longus
- c) extensor carpi radialis longus, extensor carpi radialis brevis, extensor digitorum, extensor digiti minimi, extensor carpi ulnaris
- d) abductor pollicis longus, extensor pollicis brevis, extensor pollicis longus, extensor indicis

Answer: <https://biology-forums.com/index.php?topic=1900776>

### Question 488

In the figure shown, which light micrograph shows blood?

- J
- I
- H
- G
- F

Answer: <https://biology-forums.com/index.php?topic=1902888>

### Question 489

Which of the following layers of the adrenal cortex is matched correctly?

- a) zona reticularis synthesizes dehydroepiandrosterone (DHEA)
- b) zona glomerulosa synthesizes cortisol
- c) zona fasciculata synthesizes aldosterone

Answer: <https://biology-forums.com/index.php?topic=1900967>

### Question 490

Which statement does not describe pulmonary circulation?

- a) the pulmonary trunk emerges from the right ventricle
- b) the pulmonary veins carry oxygenated blood to the left atrium
- c) pulmonary circulation carries deoxygenated blood from the left ventricle to the lungs
- d) the aveoli are surrounded by capillaries
- e) there are four pulmonary veins

Answer: <https://biology-forums.com/index.php?topic=1901068>

### Question 491

Where is the gastrocnemius?

- C
- D
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903405>

### Question 492

Complex inheritance may account for differences in

1. skin and hair color.
2. height and body build.
3. ABO and Rh phenotypes.

- a) 1 only
- b) 2 only
- c) 3 only
- d) 1 and 2 are correct.
- e) 1, 2, and 3 are correct.

Answer: <https://biology-forums.com/index.php?topic=1901270>

### Question 493

Nearly all the differences between the female and male pelvises are adaptations of the female pelvis to accommodate childbirth.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900651>

### Question 494

The most abundant class of immunoglobulins is:

- a) IgA
- b) IgD
- c) IgE
- d) IgG
- e) IgM

Answer: <https://biology-forums.com/index.php?topic=1901089>

### Question 495

This structure is unique to cardiac muscle cells, and allows individual cells to be firmly attached to each other (to provide mechanical strength during contraction), and also allow the action potential to spread rapidly through the cardiac muscle tissue, so that contractions are smooth and coordinated.

- a) desmosomes
- b) gap junctions
- c) intercalated discs
- d) Z discs
- e) sarcomeres

Answer: <https://biology-forums.com/index.php?topic=1900728>

### Question 496

The cardiac reserve would be lower in a well-trained athlete than a sedentary individual.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901047>

### Question 497

All connective tissues consist of two basic elements: cells and \_\_\_\_\_.

- a) collagen fibers
- b) chondrocytes
- c) adipose tissue
- d) extracellular matrix
- e) reticular fibers

Answer: <https://biology-forums.com/index.php?topic=1900469>

### Question 498

Down-regulation makes a target cell less sensitive to a hormone.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900955>

### Question 499

The different apoproteins in lipoproteins may serve all of the functions except

- a) help solubilize the lipoproteins in body fluids.
- b) transport dietary lipids.
- c) activate endothelial lipase.
- d) act as a docking protein during receptor-mediated endocytosis.
- e) act as a ligand for the LDL receptors on body cells.

Answer: <https://biology-forums.com/index.php?topic=1901170>

### Question 500

A high level of LDL accompanied by a low level of HDL is considered

- a) beneficial because LDL can deposit triglycerides in adipose cells for storage until the triglycerides are needed for cellular metabolism.
- b) beneficial because LDL provide a mechanism for removing cholesterol from the blood.
- c) beneficial because LDL are required for insertion of cholesterol into cell membranes.
- d) deleterious because HDL prevent accumulation of cholesterol in the blood.
- e) deleterious because LDL remove too much cholesterol from the blood.

Answer: <https://biology-forums.com/index.php?topic=1901171>

### Question 501

In the diagram, where is the zygomatic bone?

- G
- H
- I
- J
- None of these answer choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1903154>

### Question 502

Which the portion of the stomach connects to the duodenum?

- A

- E
- D
- B

Answer: <https://biology-forums.com/index.php?topic=1904243>

### Question 503

This layer's main function is to protect the kidney from trauma and hold it in place within the abdominal cavity.

- A
- B
- C

Answer: <https://biology-forums.com/index.php?topic=1904257>

### Question 504

Which ganglion supplies the stomach with postganglionic neurons?

- Middle cervical ganglion
- Inferior cervical ganglion
- Celiac ganglion
- Inferior mesenteric ganglion
- Ciliary ganglion

Answer: <https://biology-forums.com/index.php?topic=1903958>

### Question 505

The Champ is boxing a new and promising fighter called Lefty. During Round 8 of their boxing match, Lefty delivers a devastating punch directly to the champs chin. What is the most likely injury as a result of this punch to the Champs chin?

- a) the mandible has been fractured
- b) the Champs mandible has suffered a posterior displacement (dislocation)
- c) the mandible has become protracted
- d) the ligaments that stabilize the temporomandibular joint have been sprained
- e) the Champs mandible has suffered a lateral displacement (dislocation)

Answer: <https://biology-forums.com/index.php?topic=1900679>

### Question 506

Which list of organs contains smooth muscle tissue?

- a) blood vessels, stomach, esophagus
- b) bladder, uterus, small intestine
- c) biceps brachii, triceps brachii (muscles of the arm)
- d) heart
- e) both blood vessels, stomach, esophagus and bladder, uterus, small intestine

Answer: <https://biology-forums.com/index.php?topic=1900703>

### Question 507

Which two panels in the figure show a movement of a bone away from the midline of the body?

- A and B
- B and D
- D and E
- F and A
- B and F

Answer: <https://biology-forums.com/index.php?topic=1903220>

### Question 508

Parasympathetic innervation of the liver occurs through

- oculomotor (III) nerve (cranial nerve III).
- facial (VII) nerve (cranial nerve VII).
- glossopharyngeal (IX) nerve (cranial nerve IX).
- vagus (X) nerve (cranial nerve X).
- pelvic splanchnic nerve.

Answer: <https://biology-forums.com/index.php?topic=1903964>

### Question 509

Which of the labeled structures in the diagram of the trigeminothalamic pathway is the trigeminal nerve?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904044>

### Question 510

Which of the following terms that can be used to name a muscle, implies that the muscle is diamond-shaped?

- a) deltoid
- b) rhomboid
- c) gracilis
- d) brevis
- e) tensor

Answer: <https://biology-forums.com/index.php?topic=1900742>

### Question 511

When the muscles of the anterior abdominal wall become weakened and stretched, the result is a pot belly.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900841>

### Question 512

Identify the structure that contains aqueous humor.

- A
- G
- H
- F
- D

Answer: <https://biology-forums.com/index.php?topic=1904061>

### Question 513

Where is the posterior median sulcus?

Courtesy Michael Ross, University of Florida

- A
- E
- F
- H
- J

Answer: <https://biology-forums.com/index.php?topic=1903751>

### Question 514

A generator potential produces action potentials and a receptor potential causes release of neurotransmitters.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900919>

### Question 515

You are given a case study to work on in the laboratory. You are given two different bony pelvises to examine. You are told one is female and one is male. Your group notices that one of the pelvises has a wide greater sciatic notch (nearly 90), and that the angle of the pubic arch is greater than 90. What does your group conclude about this pelvis?

- a) it is a female pelvis
- b) it is a male pelvis

Answer: <https://biology-forums.com/index.php?topic=1900631>

### Question 516

Which of the neurons in the diagram would most likely pick up an itch sensation?

- A
- B
- C
- Both A and B
- All of these choices

Answer: <https://biology-forums.com/index.php?topic=1903985>

### Question 517

In the diagram, which labeled structure prevents blood flow from the right ventricle back into the right atrium?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904126>

### Question 518

Which of the following is a function of the basal nuclei?

- control subconscious contraction of skeletal muscles
- influence attention, memory and planning
- help initiate and terminate movements
- assist in regulating emotional behaviors
- all of these choices are functions of the basal nuclei

Answer: <https://biology-forums.com/index.php?topic=1900894>

### Question 519

During pregnancy, the hormone relaxin will increase the flexibility of the pubic symphysis and of ligaments of the pelvic bones that will allow expansion of the pelvic outlet during delivery of the baby.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900699>

### Question 520

Hypersecretion of a hormone by the endocrine gland marked in the diagram results in a type of depression that affects some people during the winter months, when the day length is short, known as

- thyroid crisis (storm).
- general adaptation syndrome (GAS).
- seasonal affective disorder (SAD).
- Addisonian crisis.
- posttraumatic stress disorder (PTSD).

Answer: <https://biology-forums.com/index.php?topic=1904102>

### Question 521

If you were to take 10 breaths/min and inhaled about 600 mL/breath, your minute ventilation rate would be

- 60 mL/min.
- 6 L/min.
- 10 mL/min.
- 1 L/min.
- 10 L/min.

Answer: <https://biology-forums.com/index.php?topic=1901114>

### Question 522

Bone can be classified as a connective tissue because it contains an extracellular matrix that surrounds widely spaced cells.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900570>



### Question 523

Which of the light micrographs in the figure below shows a pseudostratified columnar epithelium?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902880>

### Question 524

The basal nucleus provide direct input to the lower motor neurons (final common pathway).

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900930>

### Question 525

Which bone includes an opening for the ear canal (the external auditory meatus) and articulates with the mandible?

- a) zygomatic bone
- b) parietal bone
- c) maxillae
- d) temporal bone
- e) palatine bone

Answer: <https://biology-forums.com/index.php?topic=1900589>

### Question 526

Which of the following statements is correct about why a persons muscles get larger after weeks of regular exercise and strength training?

- a) the person has been able to change the proportion of skeletal muscle fiber types in the exercised muscles (i.e., theyve added more slow oxidative fibers to their muscles)
- b) the person has stimulated some of their muscle fibers to reproducethey have added additional cells to their exercised muscles
- c) the person has added more thin and thick filaments to their muscles
- d) all of these choices can happen with exercise
- e) none of these choices explain muscle enlargement

Answer: <https://biology-forums.com/index.php?topic=1900726>

### Question 527

Which labeled bone in the diagram of the foot is the largest and strongest tarsal bone?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903201>

### Question 528

Where in the diagram is articular cartilage located?

- B
- C
- D
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1902966>

### Question 529

The patient shown is suffering from a disease called \_\_\_\_\_, caused by a pituitary hypersecretion of hGH during adulthood.

Lester Bergman/Project Masters, Inc

- Goiter
- Graves' Disease
- Acromegaly

- Cushing's syndrome
- Giantism

Answer: <https://biology-forums.com/index.php?topic=1904100>

### Question 530

This structure is the apex of a renal pyramid.

- E
- D
- G
- K
- L

Answer: <https://biology-forums.com/index.php?topic=1904261>

### Question 531

Which pair of terms could be used to describe the location of the nose when compared to the location of the eyes?

- Medial and superior
- Lateral and proximal
- Medial and distal
- Medial and inferior
- Superior and distal

Answer: <https://biology-forums.com/index.php?topic=1900367>

### Question 532

To turn a doorknob to the right, which muscle(s) of the forearm would you use?

- anconeus
- brachioradialis
- pronator teres
- supinator
- pronator quadratus

Answer: <https://biology-forums.com/index.php?topic=1900775>

### Question 533

Which of the cells in the diagram will eventually develop into macrophages?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904105>

### Question 534

A structure made up of two or more types of tissues that performs a specific set of functions is at what level of organization?

- Chemical
- Cellular
- Tissue
- Organ
- System

Answer: <https://biology-forums.com/index.php?topic=1900359>

### Question 535

Intraepidermal macrophages are part of the skin's immune defenses and activate other immune cells when the skin is invaded by microbes. Which layer of the epidermis contains intraepidermal macrophages?

- stratum corneum
- stratum lucidum
- stratum granulosum
- stratum spinosum
- stratum basale

Answer: <https://biology-forums.com/index.php?topic=1900505>

### Question 536

In the diagram this vessel drains lymph from the upper right side of the body into venous blood using a subclavian vein.

- B
- C
- F
- G
- E

Answer: <https://biology-forums.com/index.php?topic=1904157>

### Question 537

Which of the following elements is a trace mineral in the body?

- a) Carbon
- b) Hydrogen
- c) Calcium
- d) Iodine
- e) Oxygen

Answer: <https://biology-forums.com/index.php?topic=1900380>

### Question 538

Where is the buccinator?

- F
- G
- I
- J
- K

Answer: <https://biology-forums.com/index.php?topic=1903411>

### Question 539

Which of the labeled structures on the diagram holds muscles with similar functions together, allows free movement of muscles, carries nerves, blood vessels and lymphatic vessels, and fills spaces between muscles?

- A
- B
- E
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1903377>

### Question 540

Which of the following muscles act to stabilize the scapula, and would also, when contracted, pull the shoulders back (like a soldier at attention)?

1. trapezius
2. levator scapulae
3. rhomboid major and minor

- a) 1 only
- b) 2 only
- c) 3 only
- d) 1 & 2
- e) 2 & 4

Answer: <https://biology-forums.com/index.php?topic=1900769>

### Question 541

Which of the following pulse locations do not match correctly?

- a) femoral artery inferior to inguinal ligament
- b) radial artery within the axilla
- c) dorsal pedis artery top of the foot
- d) common carotid artery base of the neck
- e) popliteal artery back of the knee

Answer: <https://biology-forums.com/index.php?topic=1901063>

### Question 542

Muscle tension of the muscles that move the bones in a joint will increase the range of motion possible at that joint.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900698>

### Question 543

Visceral pain coming from the kidney is referred to which location(s) in the diagram?

- D
- B
- G
- H
- F

Answer: <https://biology-forums.com/index.php?topic=1904054>

### Question 544

In the diagram shown below, which of the indicated structures is composed of basal lamina and reticular lamina?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902877>

### Question 545

Which of the following are used in metabolic crossroads?

- a) Pyruvic acid
- b) Glycogen
- c) Ribose
- d) ATP
- e) Lipase

Answer: <https://biology-forums.com/index.php?topic=1877815>

### Question 546

What area in the figure is the sum of the tidal volume and the inspiratory reserve volume?

- A
- B
- G
- E
- H

Answer: <https://biology-forums.com/index.php?topic=1904200>

### Question 547

Which nerves labeled in the diagram form the sciatic nerve?

- B and C
- A and B
- F and G
- E and F
- D and E

Answer: <https://biology-forums.com/index.php?topic=1903763>

### Question 548

Which of the following correctly details the flow of blood through the liver to the inferior vena cava?

- a) hepatic artery > liver sinusoids > central vein > hepatic vein > hepatic portal vein
- b) hepatic artery > hepatic portal vein > liver sinusoids > central vein > hepatic vein
- c) hepatic artery > central vein > hepatic portal vein > liver sinusoids > hepatic vein

- d) hepatic artery and hepatic portal vein > liver sinusoids > central vein > hepatic vein  
e) hepatic artery and hepatic portal vein > liver sinusoids > central vein > hepatic vein

Answer: <https://biology-forums.com/index.php?topic=1901148>

### Question 549

This joint is the largest and most complex of the body, and consists of three joints contained within its synovial cavity.

- a) temporomandibular joint  
b) elbow joint  
c) shoulder joint  
d) hip joint  
e) knee joint

Answer: <https://biology-forums.com/index.php?topic=1900683>

### Question 550

Where is the masseter?

- A
- B
- F
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1903408>

### Question 551

The gluteus medius is a common site for intramuscular injections.

[b]True or False?[b]

Answer: <https://biology-forums.com/index.php?topic=1900856>

### Question 552

If you are an endurance athlete, you especially rely on which type of skeletal muscle fiber to perform your sport?

- a) slow oxidative fibers  
b) fast oxidative-glycolytic fibers  
c) fast glycolytic fibers  
d) all of these choices are correct.  
e) none of these choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1900725>

### Question 553

Intrauterine devices and spermicides can protect against some sexually transmitted diseases.

[b]True or False?[b]

Answer: <https://biology-forums.com/index.php?topic=1901232>

### Question 554

Which part of a neuron typically receives input?

- a) axon  
b) dendrites  
c) cell body  
d) both axon and dendrites  
e) none of these

Answer: <https://biology-forums.com/index.php?topic=1900483>

### Question 555

Fluid flowing from point B in the figure will go to which of the following structures?

- J
- M
- I
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1904269>

### Question 556

Where is the external oblique?

- D
- E
- F
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903431>

### Question 557

Which of the following labeled structures is the right sympathetic trunk ganglion?

- E
- B
- L
- M
- N

Answer: <https://biology-forums.com/index.php?topic=1903911>

### Question 558

Which structure is part of the connection of the uterus to the pelvic cavity?

- B
- C
- E
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1904277>

### Question 559

What unique characteristics would a person who is "double-jointed" possess?

Answer: <https://biology-forums.com/index.php?topic=1877778>

### Question 560

Which diagram shows a movement of a distal end of a body part in a circle, in a continuous?

- A
- B
- C
- D
- F

Answer: <https://biology-forums.com/index.php?topic=1903221>

### Question 561

Why does skeletal muscle require more ATP than many other tissues in the body?

1 both contraction and relaxation require ATP to occur

2 the sarcoplasmic reticulum uses ATP to pump calcium ions back into the terminal cisterns after contraction

3 ATP is needed to convert creatine into creatine phosphate needed to provide energy at the beginning of muscle contraction

- a) 1 only
- b) 2 only
- c) 3 only
- d) 1, 2 & 3
- e) Only 1 and 3

Answer: <https://biology-forums.com/index.php?topic=1900715>

### Question 562

The \_\_\_\_\_ muscle(s) is (are) the primary extensor muscle(s) of the vertebral column.

- a) transversospinales
- b) erector spinae

- c) spinalis thoracis
- d) scalene group
- e) rotators

Answer: <https://biology-forums.com/index.php?topic=1900781>

### Question 563

What stage happens 6 days after fertilization?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904304>

### Question 564

In the diagram shown below, which cell junction is a desmosome?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902874>

### Question 565

Where is the site for implantation of a fertilized ovum?

- A
- B
- C
- D
- F

Answer: <https://biology-forums.com/index.php?topic=1904278>

### Question 566

In the diagram, where is a node of Ranvier?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903451>

### Question 567

A small amount of muscle tension and muscle definition (the appearance of muscle beneath the skin) is present even in a relaxed muscle. A person who is physically fit due to regular exercise, will have more of this characteristic of muscle tissue than someone who is not fit. What is this characteristic?

- a) muscle contraction
- b) muscle refraction
- c) muscle tone
- d) muscle refraction
- e) muscle recruitment

Answer: <https://biology-forums.com/index.php?topic=1900723>

### Question 568

What do following arteries have in common: superficial temporal artery, brachial artery and common carotid artery?

- a) They are all areas where Korotkoff sounds cannot be heard.
- b) They are all only found on the left side of the body.
- c) They are all common pulse points.
- d) They all contain baroreceptors.

Answer: <https://biology-forums.com/index.php?topic=1877807>

### Question 569

Which of the neurons in the diagram is modified in a manner that helps enhance the sensitivity of the receptor?

- A
- B
- C
- None of these choices
- All of these choices

Answer: <https://biology-forums.com/index.php?topic=1903986>

### Question 570

The Frank-Starling law of the heart states:

- a) the lower the preload on the heart the greater the force of contraction
- b) the faster the heart rate the greater the volume of blood pumped
- c) the greater the afterload the lower the pressure that must be overcome
- d) the more the heart is stretched pre-contraction the stronger the force of contraction
- e) the greater the stroke volume the greater the heart rate

Answer: <https://biology-forums.com/index.php?topic=1901046>

### Question 571

Eight separate bones of the skull unite to form the orbit (bony socket) of the eye.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900604>

### Question 572

Which of the following figures shows tissue whose functions are secretion and absorption?

- B
- C
- D
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1902894>

### Question 573

Transplant recipients on immunosuppressive drugs are more susceptible to certain cancers due to immunological surveillance.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901088>

### Question 574

Which of the following compounds would be hydrophobic in a solution with water?

- a) sodium chloride
- b) inorganic bases
- c) inorganic acids
- d) oil
- e) potassium chloride

Answer: <https://biology-forums.com/index.php?topic=1900392>

### Question 575

Which labeled structure in the diagram secretes glucagon?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904086>



### Question 576

Decreased blood sodium levels may cause cells to swell because of decreased interstitial fluid osmolarity.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901189>

### Question 577

Which of the labeled structures carries exclusively sensory information towards the spinal cord?

Dissection: Shawn Miller

Photograph: Mark Nielsen

- B
- C
- F
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1903745>

### Question 578

In the figure of a sagittal section of a fingernail shown, where is the hyponychium (nail bed)?

- B
- C
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1902914>

### Question 579

Which is not true in the comparison of natural killer (NK) cells and phagocytes?

- a) macrophages are major phagocytes
- b) NK cells identify B and T cells
- c) macrophages get rid of cellular debris
- d) NK cells secrete a substance that creates holes in the membrane of a microbe
- e) macrophages can remain in a tissue or travel throughout the body

Answer: <https://biology-forums.com/index.php?topic=1901080>

### Question 580

Hypothalamic axons extend to the pituitary gland and secrete hormones. Therefore, it is considered to be a part of both the nervous and endocrine systems.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900891>

### Question 581

Gravity and the pull of muscles against bone are the main mechanical stresses experienced by bone. Stress promotes deposition of mineral salts, collagen, and the strengthening of bone in stressed areas. Which of the following individuals would have a lower rate of bone deposition and would therefore be at greater risk for bone loss through bone resorption?

- a) a secretary who works at a desk job and does not do any regular weight-bearing exercise
- b) a college student who plays racket ball and jogs several days per week
- c) a construction worker who goes up and down ladder carrying tools and building materials all day
- d) a retired teacher who does all of her own yard work and who hikes with friends and family on the weekends
- e) none of these individuals are at any significant risk for loss of bone mass

Answer: <https://biology-forums.com/index.php?topic=1900566>

### Question 582

What is the major function of the hormone produced by the cells marked in the thyroid follicle shown in the histology picture?

Mark Nielsen

- Involved in regulation of calcium homeostasis.
- Enhances contraction of smooth muscle cells in the uterus during delivery.
- In females, initiates development of oocytes. In males, stimulates sperm production.

- Decreases urine volume.
- Increases blood levels of Na<sup>+</sup> and water.

Answer: <https://biology-forums.com/index.php?topic=1904096>

### Question 583

In the diagram which particles are negatively charged?

- A
- B
- C
- All of these choices.
- None of these choices.

Answer: <https://biology-forums.com/index.php?topic=1902853>

### Question 584

During the contraction cycle ATP is hydrolyzed (cleaved) to form ADP + P. Which process is fueled by the energy released by this reaction?

- a) myosin-binding-sites are revealed
- b) powerstrokes occur
- c) crossbridges form
- d) myosin heads reorient and reenergize
- e) crossbridges break

Answer: <https://biology-forums.com/index.php?topic=1900713>

### Question 585

Which of the following is an example of a uniaxial joint?

- a) the saddle joint between the thumb and trapezium of the wrist
- b) the hinge joint of the elbow
- c) the joint between a metacarpal and the proximal phalanx
- d) the ball-and-socket joint between the scapula and humerus
- e) the plane joints between the carpal bones (wrist)

Answer: <https://biology-forums.com/index.php?topic=1900674>

### Question 586

Which of the following muscles abducts the arm and also has an origin on the clavicle?

- a) pectoralis major
- b) subclavius
- c) pectoralis minor
- d) deltoid
- e) subscapularis

Answer: <https://biology-forums.com/index.php?topic=1900771>

### Question 587

In a newborn, all bone marrow is red, which means all of the infants marrow can make blood cells.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900569>

### Question 588

The difference between a persons maximum cardiac output and resting cardiac output is called the

- a) stroke volume.
- b) peripheral resistance.
- c) afterload.
- d) cardiac reserve.
- e) venous return.

Answer: <https://biology-forums.com/index.php?topic=1877805>

### Question 589

Which of the following statements is correct about the sternocleidomastoid (SCM) muscles?

- a) acting together, the SCM muscles flex the head at the cervical portion of the vertebral column
- b) acting individually, an SCM muscle turns the head (flexes and rotates)

- c) it is innervated by both the accessory (XI) nerve, C2, and C3  
d) it originates on the manubrium of the sternum, and the medial third of the clavicle  
e) all of these are correct statements

Answer: <https://biology-forums.com/index.php?topic=1900754>

### Question 590

People under a great amount of chronic stress are no more prone to disease than those who are not.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900975>

### Question 591

Which of the following organs is not a part of the digestive system?

- a) Esophagus
- b) Salivary glands
- c) Spleen
- d) Large intestine
- e) Liver

Answer: <https://biology-forums.com/index.php?topic=1900361>

### Question 592

Which vessels unite to form the hepatic portal vein?

- a) inferior vena cava and right colic vein
- b) splenic and left colic veins
- c) superior mesenteric and splenic veins
- d) inferior and superior mesenteric veins
- e) splenic and pancreatic veins

Answer: <https://biology-forums.com/index.php?topic=1901067>

### Question 593

This is composed of the syncytiotrophoblast and the cytotrophoblast.

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904306>

### Question 594

Taste buds consist of supporting cells, gustatory receptor cells, and basal cells.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900938>

### Question 595

In the diagram of the humerus, where is the trochlea?

- B
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1903188>

### Question 596

The simple squamous epithelium found in the esophagus allows diffusion and absorption of water.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901141>

### Question 597

Which structure in the figure is a serous membrane derived from the peritoneum and forms during descent of the testes?

- B
- C
- F
- A
- D

Answer: <https://biology-forums.com/index.php?topic=1904289>

### Question 598

The more fibers per cross-sectional area that a muscle has, the more power it can produce in a contraction.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900797>

### Question 599

Identify the ciliary body.

- A
- B
- C
- H
- F

Answer: <https://biology-forums.com/index.php?topic=1904062>

### Question 600

To maintain homeostasis, cells need to regulate their pH. Plasma proteins called Na<sup>+</sup> / H<sup>+</sup> antiporters allow the cell to move H<sup>+</sup> out of the cell, preserving a higher pH.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900442>

### Question 601

Which is NOT a part of the events that result in parathyroid hormones control of blood calcium levels?

- In response to low Ca<sup>2+</sup> levels, cells of the parathyroid gland speed up synthesis of PTH (parathyroid hormone)
- PTH acts on the kidneys to decrease excretion of calcium in the urine
- PTH stimulates the conversion of vitamin D into its active form (calcitriol)
- PTH acts on the parafollicular cells of the thyroid gland to increase the level of the hormone calcitonin
- PTH increases the number and activity of osteoclasts which dissolve bone matrix and release Ca<sup>2+</sup> to diffuse into the blood stream

Answer: <https://biology-forums.com/index.php?topic=1900559>

### Question 602

Of the main types of cytoskeletal elements, which type is involved with helping stabilize the position of organelles within the cell and attaching a cell to adjacent cells?

- microfilaments
- actin filaments
- myosin filaments
- microtubules
- intermediate filaments

Answer: <https://biology-forums.com/index.php?topic=1900419>

### Question 603

Which of the following is NOT paired correctly?

- costal surface: surface of lung lying against the ribs
- medial surface: mediastinal surface containing the hilum
- hilum: entrance and exit for bronchi, pulmonary blood vessels, and lymphatics
- root: inferior surface of the lung (part of the costal surface)
- cardiac notch: space in which the heart lies

Answer: <https://biology-forums.com/index.php?topic=1901103>

### Question 604

Damage to the radial nerve could result in difficulties with both flexing and extending the lower arm.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900850>

### Question 605

Which labeled neuron is considered to be a second-order neuron?

- A
- B
- C
- More than one answer selection is correct.
- None of the answer selections are correct.

Answer: <https://biology-forums.com/index.php?topic=1904036>

### Question 606

Which structure in the diagram is the olfactory epithelium?

- C
- D
- G
- K
- F

Answer: <https://biology-forums.com/index.php?topic=1904077>

### Question 607

Where is the anterior gray horn?

Courtesy Michael Ross, University of Florida

- B
- C
- H
- I
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1903753>

### Question 608

A high count of which of the white blood cells shown in the figure may indicate cancer or hypothyroidism?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904118>

### Question 609

All of the following structures are considered to be part of the spermatic cord EXCEPT the

- a) pampiniform plexus.
- b) ductus deferens.
- c) cremaster muscle.
- d) prostatic urethra.
- e) lymphatic vessels.

Answer: <https://biology-forums.com/index.php?topic=1901214>

### Question 610

Vitamin D, following activation in the skin, is converted to the hormone calcitriol by enzymes in the liver and kidneys. People in northern climates who may not get adequate sun exposure can become deficient in vitamin D. What mineral would be especially affected by this?

- a) iron
- b) iodine
- c) calcium
- d) magnesium
- e) sodium

Answer: <https://biology-forums.com/index.php?topic=1900520>

### Question 611

Which of the labeled structures in the diagram is a cutaneous mechanoreceptor that senses pressure and fast vibrations?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904029>

### Question 612

All of the following may occur in the digestive system as a result of aging EXCEPT

- a) decreased incidence of appendicitis and acute pancreatitis.
- b) decreased response to pain and internal sensations.
- c) increased incidence of duodenal ulcers.
- e) decreased sensitivity to mouth irritations and ulcers.

Answer: <https://biology-forums.com/index.php?topic=1901163>

### Question 613

Which bone cell in the diagram below is an osteogenic cell?

- A
- B
- C
- D

Answer: <https://biology-forums.com/index.php?topic=1902952>

### Question 614

In the diagram, where is the crista galli?

- C
- A
- B
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1903164>

### Question 615

Lipids may be formed from some amino acids.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901173>

### Question 616

The enzyme, produced in the organ labeled D, that produces only glucose as a product is called:

- maltase
- pancreatic lipase
- sucrase
- pepsin
- nucleases

Answer: <https://biology-forums.com/index.php?topic=1904253>

### Question 617

In the diagram, what pH value represents an acidic solution?

- 12
- 10
- 8
- 6
- None of these choices.

Answer: <https://biology-forums.com/index.php?topic=1902856>

### Question 618

Which type of muscle tissue is involuntary (cant be consciously controlled)?

- a) skeletal muscle
- b) smooth muscle
- c) cardiac muscle
- d) a and b only
- e) b and c only

Answer: <https://biology-forums.com/index.php?topic=1900704>

### Question 619

The extrinsic tongue muscles originate outside the tongue and insert within the tongue, while the intrinsic muscles of the tongue have their origins and insertions within the tongue.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900834>

### Question 620

Which of the following precursor cells give rise to agranular leukocytes?

- a) Proerythroblast
- b) Megakaryoblast
- c) Lymphoblast
- d) Myeloblast
- e) None of the selections are correct.

Answer: <https://biology-forums.com/index.php?topic=1877804>

### Question 621

What area in the figure represents a very deep inhalation, much greater than the tidal volume?

- B
- A
- G
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1904204>

### Question 622

In the diagram, where is the cribriform plate?

- D
- E
- F
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1903162>

### Question 623

Which of the following is true when comparing types of pain sensations?

- a) C fibers, myelinated, slow pain
- b) A fibers, unmyelinated, acute pain
- c) C fibers, unmyelinated, chronic pain
- d) A fibers, myelinated, slow pain

Answer: <https://biology-forums.com/index.php?topic=1900924>

### Question 624

In the diagram, removal of one or more of this type of subatomic particle would result in the formation of a cation?

- A
- B
- C

- All of these choices.
- None of these choices.

Answer: <https://biology-forums.com/index.php?topic=1902854>

### Question 625

Slow growth, characteristic facial features, various organ abnormalities, mental retardation, and behavioral problems are all characteristic of prenatal exposure to high levels of

- a) cigarette smoke.
- b) ionizing radiation.
- c) alcohol.
- d) papilloma viruses.
- e) some antibiotics.

Answer: <https://biology-forums.com/index.php?topic=1901255>

### Question 626

Which structure in the figure is the zona pellucida?

- A
- B
- D
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1904299>

### Question 627

The primary difference between a sensory and a mixed cranial nerve is that a mixed cranial nerve has its origins within the CNS and the spinal cord. [b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900900>

### Question 628

With which paired bones of the skull does the mandible articulate with (form a joint with)?

- a) maxillae
- b) zygomatic bones
- c) palatine bones
- d) temporal bones
- e) parietal bones

Answer: <https://biology-forums.com/index.php?topic=1900594>

### Question 629

Which of the following describes a function of a hormone produced in zone of the adrenal gland labeled B?

Mark Nielsen

- enables body to resist stressors and also increases blood glucose
- intensifies sympathetic responses in other parts of the body
- accelerates formation of glucose from glycogen (glycogenolysis)
- stimulates growth of axillary and pubic hair
- stimulates breast development and milk secretion

Answer: <https://biology-forums.com/index.php?topic=1904089>

### Question 630

All of the intrinsic muscles of the foot are innervated by the medial and lateral plantar nerves.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900863>

### Question 631

Which of the following anatomical terms refers to the thumb?

- a) pollex
- b) tarsal
- c) hallux
- d) volar



e) carpal

Answer: <https://biology-forums.com/index.php?topic=1877755>

### Question 632

The septum of the scrotum is made up of a subcutaneous layer and which muscle tissue?

- A
- B
- F
- G
- I

Answer: <https://biology-forums.com/index.php?topic=1904274>

### Question 633

The belly of the muscle that moves a joint often does not itself cover the joint.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900792>

### Question 634

Which of the labeled structures of the femur serve as points of attachment for the tendons of thigh and buttocks muscles?

- A, B
- A, B, C
- A, D
- A, B, M
- D, M, L

Answer: <https://biology-forums.com/index.php?topic=1903196>

### Question 635

Which plane is frontal?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902843>

### Question 636

Energy is transferred from ATP to complex molecules by catabolic reactions and is transferred from complex molecules to ATP by anabolic reactions.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901164>

### Question 637

Which structure in the figure is the theca interna?

- A
- H
- E
- D
- F

Answer: <https://biology-forums.com/index.php?topic=1904297>

### Question 638

Which nerve supplies the inferior mesenteric ganglion with preganglionic neurons?

- Lumbar splanchnic nerve
- Lesser splanchnic nerve
- Greater splanchnic nerve
- Cardiac accelerator
- Phrenic nerve

Answer: <https://biology-forums.com/index.php?topic=1903959>

### Question 639

Where is the aorticorenal ganglion in the diagram?

- C
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1904022>

### Question 640

Which of the labeled structures in the diagram senses touch, pressure and slow vibrations?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903934>

### Question 641

When the term rectus appears in the name of a muscle, it indicates that

- a) it is a relatively small muscle
- b) it is a relatively large muscle
- c) it is circular in shape
- d) it is flat in shape
- e) the muscle fascicles run parallel to the midline of the body

Answer: <https://biology-forums.com/index.php?topic=1900741>

### Question 642

The term used to describe a backflow of blood from the left ventricle into the left atrium is:

- a) aortic stenosis
- b) mitral valve prolapse
- c) semilunar valve prolapse
- d) mitral valve stenosis
- e) aortic insufficiency

Answer: <https://biology-forums.com/index.php?topic=1901003>

### Question 643

Which of the labeled structures in the diagram is a pain receptor?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903932>

### Question 644

During carrier-mediated facilitated diffusion, the cell will increase its transport maximum if the concentration gradient is increased.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900441>

### Question 645

Where is the flexor carpi radialis?

- D
- E
- F

- G
- H

Answer: <https://biology-forums.com/index.php?topic=1903436>

### Question 646

The meninges would be found within which body cavity?

- a) Pelvic cavity
- b) Thoracic cavity
- c) Mediastinum
- d) Vertebral and cranial
- e) Abdominopelvic cavity

Answer: <https://biology-forums.com/index.php?topic=1900371>

### Question 647

The cytoplasm of a cell is made up of which of the following?

- a) the plasma membrane and cytosol
- b) the cytosol and the nucleus
- c) the plasma membrane and organelles
- d) the cytosol and organelles
- e) the organelles and the nucleus

Answer: <https://biology-forums.com/index.php?topic=1900409>

### Question 648

The cis to trans conversion of retinal when photopigments respond to light is called:

- a) bleaching
- b) regeneration
- c) isomerization
- d) adaptation

Answer: <https://biology-forums.com/index.php?topic=1900942>

### Question 649

Where is the posterior ramus?

Dissection: Shawn Miller

Photograph: Mark Nielsen

- B
- C
- G
- H
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1903748>

### Question 650

Which structure in the figure secretes an alkaline fluid that protects sperm by neutralizing acids in the urethra?

- C
- H
- B
- G
- F

Answer: <https://biology-forums.com/index.php?topic=1904286>

### Question 651

In the lab, Celia adds concentrated sulfuric acid to a beaker full of water. She touches the side of the beaker and finds the solution she's made has become hot. This is evidence of an endergonic reaction.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900405>

### Question 652

Each kidney can have anywhere from 8 to 18 of these.

- I
- J
- K
- L
- H

Answer: <https://biology-forums.com/index.php?topic=1904260>

### Question 653

Where is the splenius capitis?

- A
- B
- C
- K
- L

Answer: <https://biology-forums.com/index.php?topic=1903416>

### Question 654

The pluripotent stem cell is a type of cell that develops into a blood cell

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901070>

### Question 655

Pulmonary blood vessels constrict in response to hypoxia whereas blood vessels in the systemic circulation dilate in response to low oxygen.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901062>

### Question 656

Which of the types of circuits is commonly used to send sensory signals to multiple areas of the brain?

- A
- B
- C
- D

Answer: <https://biology-forums.com/index.php?topic=1903457>

### Question 657

In the diagram of the wrist and hand, where is the trapezoid bone?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903192>

### Question 658

Which of the labeled structures in the diagram of the trigeminothalamic pathway is the first-order neuron?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904046>

### Question 659

In the diagram, where would you find stored Ca<sup>2+</sup>?

- B

- D
- G
- F
- K

Answer: <https://biology-forums.com/index.php?topic=1903382>

### Question 660

Which plexus or nerve shown in the diagram supplies the renal arteries?

- B
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1904024>

### Question 661

Cholinergic neurons are named after the neurotransmitters that they release, the catecholamines.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900909>

### Question 662

The decreased likelihood of graft-versus-host disease is an advantage of a cord-blood transplant over a bone marrow transplant.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900991>

### Question 663

Age-related changes in the respiratory system may cause

1. decrease in vital capacity of as much as 35% by age 70 due to decreased tissue elasticity.
  2. an increased incidence of pneumonia and bronchitis because of decreased alveolar macrophage activity and ciliary action in the respiratory tract.
  3. an increase in tidal volume due to damage to alveoli and decreased surfactant production.
- a) 1 only  
b) 2 only  
c) 3 only  
d) 1 and 2 are correct.  
e) 1, 2, and 3 are correct.

Answer: <https://biology-forums.com/index.php?topic=1901127>

### Question 664

What physiological process is depicted in this figure?

- Venous blood blockage
- Skeletal muscle pump
- Respiratory pump
- Thoroughfare channels
- Anastomosis

Answer: <https://biology-forums.com/index.php?topic=1904153>

### Question 665

Which of the following is false regarding aging on the immune system?

- a) more susceptible to infections
- b) produce fewer autoantibodies
- c) less reaction to vaccines
- d) more prone to malignancies
- e) all of these choices are true

Answer: <https://biology-forums.com/index.php?topic=1901095>

### Question 666

Where is the adductor longus?

- H

- I
- J
- K
- L

Answer: <https://biology-forums.com/index.php?topic=1903442>

### Question 667

The joints most commonly replaced by arthroplasty are the intervertebral joints, the elbow joint, and the knee joint.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900702>

### Question 668

By which process, as an individual grows to adulthood, is the thickness (diameter) of bone increased?

- a) appositional growth
- b) primary ossification
- c) secondary ossification
- d) chondrocyte calcification
- e) all of these processes occur

Answer: <https://biology-forums.com/index.php?topic=1900554>

### Question 669

Which bone cell in the diagram below is a mature bone cell that helps maintain bone tissue?

- A
- B
- C
- D

Answer: <https://biology-forums.com/index.php?topic=1902951>

### Question 670

Where is the uvula?

- E
- F
- Q
- S
- U

Answer: <https://biology-forums.com/index.php?topic=1904178>

### Question 671

Which nerve supplies the inferior mesenteric ganglion with preganglionic neurons?

- Lumbar splanchnic nerve
- Lesser splanchnic nerve
- Greater splanchnic nerve
- Cardiac accelerator
- Phrenic nerve

Answer: <https://biology-forums.com/index.php?topic=1904000>

### Question 672

Where is the mature ovarian follicle?

- A
- B
- C
- F
- H

Answer: <https://biology-forums.com/index.php?topic=1904281>

### Question 673

In the figure shown, which light micrograph shows a muscle tissue that is under involuntary control?

- 1 A
- 2 B
- 3 C
- 1 only
- 2 only
- 3 only
- 1 and 2
- 1 and 3

Answer: <https://biology-forums.com/index.php?topic=1902890>

### Question 674

Most proteins are absorbed as amino acids through \_\_\_\_\_, while dietary lipids are absorbed through \_\_\_\_\_.

- a) facilitated diffusion; active transport
- b) active transport; facilitated diffusion
- c) facilitated diffusion; simple diffusion
- d) simple diffusion; active transport
- e) active transport; simple diffusion

Answer: <https://biology-forums.com/index.php?topic=1901154>

### Question 675

Which is not true of the fibrous skeleton of the heart?

- a) it acts as an electrical insulator
- b) it connects with the interatrial septum
- c) it consists of four connective tissue rings
- d) it prevents overstretching of the valves
- e) all the above are not true

Answer: <https://biology-forums.com/index.php?topic=1901002>

### Question 676

The shift of blood flow from the uterus to the muscles and skin during exercise may result in an inadequate blood supply to the placenta.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901259>

### Question 677

Where is the brachioradialis?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903435>

### Question 678

Which of the following labeled panels in the figure shows extension?

- E
- D
- F
- G
- I

Answer: <https://biology-forums.com/index.php?topic=1903219>

### Question 679

During the process of bone formation in a fetus, a primary ossification center develops in the epiphysis of a cartilage model of a long bone.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900575>

### Question 680

This structure electrically insulates the axon of a neuron to increase the speed of nerve impulse conduction.

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903450>

### Question 681

In the diagram, where is the vomer bone?

- A
- B
- E
- D
- C

Answer: <https://biology-forums.com/index.php?topic=1903165>

### Question 682

The oral cavity is formed by the cheeks, tongue, and Hard palate, but does not include the soft palate.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901135>

### Question 683

At a synapse, the neuron sending the signal towards the synapse is called the \_\_\_\_\_ neuron.

- a) presynaptic
- b) postsynaptic
- c) axodendritic
- d) axoaxonic

Answer: <https://biology-forums.com/index.php?topic=1900867>

### Question 684

Which of the labeled endocrine glands secretes hGH, TSH, FSH and other hormones?

- A
- B
- C
- I
- D

Answer: <https://biology-forums.com/index.php?topic=1904080>

### Question 685

The distal end of the radius articulates with which three bones of the wrist?

- 1 lunate
  - 2 capitate
  - 3 scaphoid
  - 4 triquetrum
  - 5 hamate
- a) 1, 3, 4
  - b) 2, 4, 5
  - c) 3, 4, 5
  - d) 1, 4, 5
  - e) 2, 3, 4

Answer: <https://biology-forums.com/index.php?topic=1900622>

### Question 686

Which plexus or nerve shown in the diagram supplies the bronchial tree?

- A
- C



- F
- B
- E

Answer: <https://biology-forums.com/index.php?topic=1903984>

### Question 687

Which of the following cells is part of the body's second line of defense?

- a) Mucous cells
- b) Germ cells
- c) B and T Lymphocytes
- d) Natural killer cells
- e) None of these choices

Answer: <https://biology-forums.com/index.php?topic=1877810>

### Question 688

What area in the figure is the sum of the tidal volume and the inspiratory reserve volume and expiratory reserve volume?

- H
- B
- G
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1904201>

### Question 689

Ultimately, vestibular axons connect with the olfactory (I) nerve.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900949>

### Question 690

In the figure of a sagittal section of a fingernail shown, where is the lunula?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902917>

### Question 691

Which of the labeled structures in the diagram are circumferential lamellae?

- A
- B
- C
- D
- G

Answer: <https://biology-forums.com/index.php?topic=1902971>

### Question 692

Which of the following is true of the thalamus?

- a) it is the major relay center for just motor impulses
- b) it is a component of the diencephalon
- c) it precisely locates sensations of pain, temperature, pressure and sound
- d) the external capsule connects the thalamus with the cerebral cortex

Answer: <https://biology-forums.com/index.php?topic=1900890>

### Question 693

This type of lipid is the body's primary long-term energy storage molecule.

- a) steroid
- b) phospholipid

- c) cholesterol
- d) triglyceride
- e) lipoprotein

Answer: <https://biology-forums.com/index.php?topic=1877765>

### Question 694

Where is the amniotic cavity?

- E
- D
- C
- B
- A

Answer: <https://biology-forums.com/index.php?topic=1904307>

### Question 695

Which cell secretes surfactant?

- A
- B
- C
- D
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904199>

### Question 696

Which of the following muscles is short?

- a) levator scapulae
- b) vastus lateralis
- c) adductor brevis
- d) tensor fasciae latae
- e) extensor carpi ulnaris

Answer: <https://biology-forums.com/index.php?topic=1900743>

### Question 697

Which of the following would not be a contributing factor to muscle fatigue?

- a) release of excessive amounts of acetylcholine at the neuromuscular junction
- b) a feeling that you want to quit, that the activity is too difficult (central fatigue)
- c) depletion of adequate supplies of oxygen and ATP
- d) a buildup of lactic acid
- e) all of these contribute to muscle fatigue

Answer: <https://biology-forums.com/index.php?topic=1900719>

### Question 698

In a few locations (tarsal glands of the eyelids, the head of the penis, the lips, etc), sebaceous glands release sebum directly onto the surface of the skin.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900531>

### Question 699

Which of the joints shown in the figure is classified as a biaxial joint?

- B
- C
- D
- E
- More than one selection is correct

Answer: <https://biology-forums.com/index.php?topic=1903211>

### Question 700

The endocrine gland shown in the diagram is found in a depression in the sphenoid bone (marked in the diagram) called the

- maxilla.
- infundibulum.
- primary plexus.
- cribriform plate.
- hypophyseal fossa.

Answer: <https://biology-forums.com/index.php?topic=1904092>

### Question 701

The acromion is a flattened process, which articulates with the humerus.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900642>

### Question 702

Which of the following is not a factor in destroying attacking pathogens?

- a) chemotaxis
- b) the release of lysozymes
- c) erythropoiesis
- d) emigration
- e) phagocytosis

Answer: <https://biology-forums.com/index.php?topic=1900986>

### Question 703

Bile breaks down fats into monoglycerides and fatty acids.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901151>

### Question 704

\_\_\_\_\_ is the process of an atom giving up or gaining one or more electrons through its interactions with other atoms.

- a) Formation of valence electrons
- b) Radioactivity
- c) Ionization
- d) Formation of free radicals
- e) Atomic accumulation

Answer: <https://biology-forums.com/index.php?topic=1900384>

### Question 705

The fingertips, hands, and lips are supplied with both rapidly adapting and slowly adapting touch receptors.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900922>

### Question 706

In the diagram, which panel shows the kinetochore of the centromeres aligning along the center of the mitotic spindle of the cell?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902866>

### Question 707

Where is the inferior mesenteric ganglion and plexus in the figure?

- E
- F
- G
- M
- N

Answer: <https://biology-forums.com/index.php?topic=1903913>

### Question 708

During hemopoiesis, some of the myeloid stem cells will eventually develop into

- a) proerythroblasts.
- b) T lymphoblasts.
- c) B lymphoblasts.
- d) NK lymphoblasts.
- e) all of these choices.

Answer: <https://biology-forums.com/index.php?topic=1877802>

### Question 709

Which site labeled on the diagram is considered the weakest point of the clavicle?

- A
- B
- C
- D
- None of these choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1903181>

### Question 710

Which of the following is the strongest muscle of mastication?

- a) buccinator
- b) masseter
- c) temporalis
- d) medial pterygoid
- e) lateral pterygoid

Answer: <https://biology-forums.com/index.php?topic=1900750>

### Question 711

The enzyme, produced in the organ labeled D, that produces both glucose and galactose as products is called:

- lactase
- pancreatic lipase
- sucrase
- pepsin
- nucleases

Answer: <https://biology-forums.com/index.php?topic=1904252>

### Question 712

In temporal summation, a single presynaptic neuron stimulates the creation of action potentials in a postsynaptic neuron when it

- a) stops firing long enough to allow the postsynaptic neuron to recover.
- b) fires at a fast enough rate that the sum of EPSPs in the postsynaptic neuron moves above threshold.
- c) fires at a steady rate that allows the postsynaptic neuron to return to resting potential.
- d) recruits other presynaptic neurons to begin to fire.
- e) runs out of neurotransmitter.

Answer: <https://biology-forums.com/index.php?topic=1877784>

### Question 713

A greenstick fracture would only be seen in an elderly person with more fragile bones.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900581>

### Question 714

Which statement is not true in describing the equilibrium pathways?

- a) the cerebellum is vital in maintaining posture
- b) axons from the vestibular nuclei connect with the vagus (X) nerve and the hypoglossal (XII) nerves, which control eye movements
- c) some axons from the vestibulocochlear (VIII) nerve enter the cerebellum
- d) most axons of the vestibulocochlear (VIII) nerve terminate in the medulla and pons

Answer: <https://biology-forums.com/index.php?topic=1900950>

### Question 715

Which of the labeled steps in the diagram represent formation of the endocardial tubes?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904135>

### Question 716

Paranasal sinuses are very small or even absent at birth, but develop when teeth erupt from the gums and during puberty, the two periods of facial enlargement.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900605>

### Question 717

Which type of tissue is found in the tubules of kidneys, the covering of the ovaries, and also in glandular tissues such as the thyroid gland? Its function is absorption and secretion.

- a) simple squamous epithelium
- b) dense irregular connective tissue
- c) simple cuboidal epithelium
- d) stratified cuboidal epithelium
- e) reticular connective tissue

Answer: <https://biology-forums.com/index.php?topic=1900463>

### Question 718

The development of specialized cells from unspecialized stem cells is a description of which of the following basic life processes?

- a) Metabolism
- b) Movement
- c) Growth
- d) Differentiation
- e) Reproduction

Answer: <https://biology-forums.com/index.php?topic=1900362>

### Question 719

Which of the following structures passes through the opening labeled 2 in the diagram?

- internal carotid artery
- mental nerve
- cranial nerve XI (accessory)
- branch of the occipital artery
- cranial nerve VII (facial)

Answer: <https://biology-forums.com/index.php?topic=1903176>

### Question 720

In extracellular fluid the most abundant anion is:

- a) Na<sup>+</sup>
- b) Cl<sup>-</sup>
- c) K<sup>+</sup>
- d) HPO<sub>4</sub><sup>2-</sup>
- e) HCO<sub>3</sub><sup>-</sup>

Answer: <https://biology-forums.com/index.php?topic=1877823>

### Question 721

Which of the following muscles contract during quiet exhalation?

- a) diaphragm
- b) internal intercostal muscles

- c) abdominal muscles
- d) All of these choices contract during quiet exhalation.
- e) None of these choices contract during quiet exhalation.

Answer: <https://biology-forums.com/index.php?topic=1901108>

### Question 722

This fontanel usually closes within 18 to 24 months after birth.

- A
- B
- C
- D
- Both A and C

Answer: <https://biology-forums.com/index.php?topic=1903168>

### Question 723

Which of the following cells secretes pepsinogen?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904250>

### Question 724

The medial end of the clavicle is called the sternal end.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900643>

### Question 725

Which type of muscle tissue is under the voluntary control of our nervous system. We can consciously control the movement of this type of muscle tissue.

- a) skeletal
- b) cardiac
- c) smooth

Answer: <https://biology-forums.com/index.php?topic=1900481>

### Question 726

Which of the labeled diagrams shows an atrial septal defect?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904133>

### Question 727

In the diagram, which labeled structures are atrioventricular valves?

- B only
- D only
- A and C
- B and D
- A, B, C and D

Answer: <https://biology-forums.com/index.php?topic=1904128>

### Question 728

What two structures comprise the renal corpuscle?

- A and B
- C and D
- E and F
- K and L
- N and O

Answer: <https://biology-forums.com/index.php?topic=1904263>

### Question 729

This layer's main function is to protect the kidney from trauma and hold it in place within the abdominal cavity.

- a) A
- b) B
- c) C

Answer: <https://biology-forums.com/index.php?topic=1877818>

### Question 730

Which nerve supplies the inferior mesenteric ganglion with preganglionic neurons?

- Lumbar splanchnic nerve
- Lesser splanchnic nerve
- Greater splanchnic nerve
- Cardiac accelerator
- Phrenic nerve

Answer: <https://biology-forums.com/index.php?topic=1903904>

### Question 731

Which of the following labeled structures in the diagram are concentric lamellae?

- A
- B
- C
- D
- G

Answer: <https://biology-forums.com/index.php?topic=1902970>

### Question 732

Which labeled blood vessel shown in the diagram is the left common carotid artery?

- A
- B
- E
- F
- H

Answer: <https://biology-forums.com/index.php?topic=1904139>

### Question 733

Which structure has a portion removed in a vasectomy?

- A
- D
- E
- G
- I

Answer: <https://biology-forums.com/index.php?topic=1904275>

### Question 734

Where are the olfactory receptors found?

- A
- B

- C
- D
- U

Answer: <https://biology-forums.com/index.php?topic=1904182>

### Question 735

Which of the following is incorrect following birth?

- the umbilical vein becomes the round ligament
- the foramen ovale allows continued passage of blood to the left ventricle
- the ductus arteriosus becomes the ligamentum arteriosum
- the umbilical arteries become the medial umbilical ligaments
- the placenta or afterbirth is disposed of

Answer: <https://biology-forums.com/index.php?topic=1901069>

### Question 736

The extensive blood supply of the uterus is essential to support regrowth of a new stratum basalis following menstruation.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901225>

### Question 737

The site where a somatic motor neuron releases acetylcholine to stimulate a skeletal muscle fiber is called the

- neuromuscular junction
- synaptic end bulbs
- motor end plate
- myofibril
- sarcolemma

Answer: <https://biology-forums.com/index.php?topic=1900709>

### Question 738

Cells are genetically programmed to die, responding to cell signals that can come from outside or inside the cell. This process is called necrosis and is a normal way to regulate cell numbers during fetal development and within tissues and organs after birth

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900451>

### Question 739

The parotid glands are found

- in the tongue.
- between the skin and the masseter muscle.
- in the floor of the mouth.
- beneath the tongue.
- in the palate.

Answer: <https://biology-forums.com/index.php?topic=1901137>

### Question 740

In the diagrams of the pelvis, where is the ischial tuberosity?

- E
- F
- G
- H
- Not labeled in the diagrams

Answer: <https://biology-forums.com/index.php?topic=1903194>

### Question 741

Where is the lateral white column?

Courtesy Michael Ross, University of Florida

- C
- D
- G



- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903752>

### Question 742

What is occurring during isovolumetric contraction?

- a) the amount of blood in each atria is the same
- b) the semilunar valves are open and the AV valves are closed
- c) the point at which all blood has been ejected from the ventricles
- d) all four valves are closed
- e) both atria are ejecting blood at the same time

Answer: <https://biology-forums.com/index.php?topic=1901011>

### Question 743

The uterine tubes form a direct connection between the ovaries and the uterus.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901221>

### Question 744

An age-related change where an individual has a ringing sensation in the ears is called:

- a) presbyopia
- b) cataracts
- c) presbycusis
- d) tinnitus
- e) glaucoma

Answer: <https://biology-forums.com/index.php?topic=1900952>

### Question 745

The muscles of facial expression insert onto the skin, so when they contract, they move skin rather than a joint.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900831>

### Question 746

Which is the correct order of events of sound transmission through the ear?

1. sound waves strike the eardrum
  2. the ear ossicles vibrate
  3. hair cells of the spiral organ vibrate
  4. the perilymph in the cochlea moves
  5. sound waves enter the external auditory canal
- a) 5, 4, 3, 2, 1
  - b) 1, 2, 3, 4, 5
  - c) 5, 1, 2, 4, 3
  - d) 5, 2, 1, 3, 4

Answer: <https://biology-forums.com/index.php?topic=1900945>

### Question 747

In the womb, which is the correct sequence of development for the dermis?

- a) ectoderm mesoderm mesenchyme dermis
- b) basal layer periderm mesoderm dermis
- c) basal layer mesenchyme periderm dermis
- d) mesoderm mesenchyme periderm dermis
- e) mesoderm mesenchyme dermis

Answer: <https://biology-forums.com/index.php?topic=1900524>

### Question 748

The process of intramembranous ossification generates bone within a pre-existing template composed of mesenchymal tissue. In contrast, endochondral ossification generates bone within a pre-existing template composed of \_\_\_\_\_.

- a) hyaline cartilage
- b) periosteum
- c) articular cartilage

- d) adipose tissue  
e) none of these choices

Answer: <https://biology-forums.com/index.php?topic=1900551>

### Question 749

It takes 4-6 weeks for a keratinocyte to form in the stratum basale, become keratinized in its journey through the upper layers of the epidermis, and to finally be sloughed off as a dead skin cell.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900528>

### Question 750

A ballerina who points her toes to stand literally on the tip of her toes for a dance movement is doing what type of special movement at the ankle joint?

- a) inversion  
b) eversion  
c) plantar flexion  
d) dorsiflexion  
e) pronation

Answer: <https://biology-forums.com/index.php?topic=1900672>

### Question 751

In the embryo, both upper and lower limb buds have appeared before the beginning of the fifth week of development.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900658>

### Question 752

Which of the following contributes the most to holding the head of the humerus in the glenoid cavity in the shoulder joint?

- a) the articular capsule  
b) the coracohumoral ligament  
c) the glenohumoral ligaments  
d) the glenoid labrum  
e) the muscles of the rotator cuff

Answer: <https://biology-forums.com/index.php?topic=1900681>

### Question 753

Buffer systems, exhaling carbon dioxide and excretion by the kidneys, are all

- a) Ways to balance interstitial fluid  
b) Means of balancing blood volume  
c) Ways of controlling H<sup>+</sup> levels in the body  
d) Ways to make ions  
e) Ways to increase blood volume

Answer: <https://biology-forums.com/index.php?topic=1877827>

### Question 754

Which of the following hormones is produced by the endocrine gland marked in the diagram?

- testosterone
- glucagon
- melatonin
- thymopoietin
- vasopressin

Answer: <https://biology-forums.com/index.php?topic=1904104>

### Question 755

Developmentally, the cisterna chyli gives rise to the more superiorly located thoracic duct.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901077>

### Question 756

Mature sperm arrive at the efferent ducts in the epididymis immediately from which structure in the figure?

- G
- H
- F
- A
- D

Answer: <https://biology-forums.com/index.php?topic=1904291>

### Question 757

Each element has a unique identifying number called the atomic number. Which of the following subatomic particles is(are) represented by the atomic number?

- a) Protons
- b) Neutrons
- c) Electrons
- d) Both protons and neutrons
- e) Both neutrons and electrons

Answer: <https://biology-forums.com/index.php?topic=1900381>

### Question 758

Voluntary control of the external anal sphincter can occur because the smooth muscles involved are controlled by the sympathetic nervous system.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901159>

### Question 759

In a DNA molecule, adenine always pairs with \_\_\_\_\_, while in RNA molecules, adenine pairs with \_\_\_\_\_.

- a) thymine / adenine
- b) cytosine / uracil
- c) hymine / uracil
- d) uanine / thymine
- e) uracil / cytosine

Answer: <https://biology-forums.com/index.php?topic=1900402>

### Question 760

Which vessel in the diagram is the interlobular vein?

- C
- D
- E
- F
- L

Answer: <https://biology-forums.com/index.php?topic=1904271>

### Question 761

What type of skeletal muscle fiber would an Olympic quality weight lifter specifically be developing during training, to enhance his or her weight lifting power?

- a) slow oxidative fibers
- b)fast oxidative-glycolytic fibers
- c) fast glycolytic fibers
- d) all of these choices
- e) none of these choices

Answer: <https://biology-forums.com/index.php?topic=1900724>

### Question 762

Most of the muscles of both the superficial and deep anterior (flexor) compartments of the forearm are innervated by the median nerve.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900852>

### Question 763

In muscles of the limbs, the origin of the muscle is usually distal and the insertion is proximal.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900793>

### Question 764

Which of the following is a type of angular movement?

- a) flexion
- b) extension
- c) abduction
- d) adduction
- e) all of these are examples of angular movement

Answer: <https://biology-forums.com/index.php?topic=1900667>

### Question 765

Which of the following statements about phosphate is CORRECT?

- a) Parathyroid hormone increases urinary excretion of phosphate ions.
- b) Most phosphate ions are covalently bound to organic molecules.
- c) About 15% of phosphate is found in ionized form in the body.
- d) All of these choices are correct.
- e) None of these choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1901191>

### Question 766

In the diagram, where is the palatine bone?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903158>

### Question 767

What is line A pointing to?

- Hyoid bone
- Trachea
- Adams Apple
- Thyroid
- Epiglottis

Answer: <https://biology-forums.com/index.php?topic=1904189>

### Question 768

Which structure was formerly called the blastocyst cavity?

- C
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1904305>

### Question 769

The \_\_\_\_\_ supplies nutrients to the embryo and is the source of blood cells during early embryonic development.

- a) trophoblast
- b) hypoblast
- c) epiblast
- d) bilaminar embryonic disc
- e) yolk sac

Answer: <https://biology-forums.com/index.php?topic=1901241>

### Question 770

Which of the following situations would represent a serious disruption of the homeostasis of the volume and composition of body fluids?

- a) Eating a normal meal and drinking a glass of water
- b) Normal urination
- c) Sweating on a warm day, but drinking lemonade in the shade afterwards
- d) Drinking a sports drink after playing a game of basketball with friends
- e) Becoming dehydrated as your lifeboat drifts on the empty ocean

Answer: <https://biology-forums.com/index.php?topic=1900364>

### Question 771

The bilaminar embryonic disc is formed from the

- a) outer cell mass.
- b) embryoblast.
- c) amnion.
- d) syncytiotrophoblast.
- e) cytotrophoblast.

Answer: <https://biology-forums.com/index.php?topic=1901240>

### Question 772

Lymph travels to the efferent lymphatic vessel from which structure in the figure?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904168>

### Question 773

An increase in white blood cell count above normal levels is called:

- a) leukopenia
- b) erythrocytosis
- c) emigration
- d) leukocytosis
- e) erythropoiesis

Answer: <https://biology-forums.com/index.php?topic=1900987>

### Question 774

Which of the neurons in the diagram would most likely pick up an itch sensation?

- A
- B
- C
- Both A and B
- All of these choices

Answer: <https://biology-forums.com/index.php?topic=1904026>

### Question 775

Which of the following does not describe the autonomic nervous system?

- a) the effectors are primarily skeletal muscles
- b) the sympathetic division generally stimulates an organ
- c) preganglionic axons release acetylcholine
- d) it is under involuntary control
- e) the parasympathetic division decreases heart rate

Answer: <https://biology-forums.com/index.php?topic=1900904>

### Question 776

Urine formed by the nephrons first drains into these.

- H
- I

- J
- K
- L

Answer: <https://biology-forums.com/index.php?topic=1904262>

### Question 777

The trapezius and deltoid muscles are both innervated by the axillary nerve.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900848>

### Question 778

Which ganglion supplies the stomach with postganglionic neurons?

- Middle cervical ganglion
- Inferior cervical ganglion
- Celiac ganglion
- Inferior mesenteric ganglion
- Ciliary ganglion

Answer: <https://biology-forums.com/index.php?topic=1903999>

### Question 779

The articular capsule of synovial joints, like articular cartilages, is avascular.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900693>

### Question 780

Parasympathetic innervation of the liver occurs through

- oculomotor (III) nerve (cranial nerve III).
- facial (VII) nerve (cranial nerve VII).
- glossopharyngeal (IX) nerve (cranial nerve IX).
- vagus (X) nerve (cranial nerve X).
- pelvic splanchnic nerve.

Answer: <https://biology-forums.com/index.php?topic=1903909>

### Question 781

Mitochondria contain their own genes. Study of these genes has revealed that mitochondria can be inherited from both the mother and the father when sperm and egg cells unite.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900444>

### Question 782

You have chosen to be listed as a bone marrow donor, and in the process have had HLA typing of your white blood cells. Among other antigens, the report states that you are expressing HLA-A2, A8, B21, B27, DR3, and DR4 proteins on your tissues. This is an example of

- polygenic inheritance.
- multiple-allele inheritance.
- incomplete dominance
- complete dominance
- genomic imprinting.

Answer: <https://biology-forums.com/index.php?topic=1901269>

### Question 783

Hemolytic disease of the newborn usually does not affect the first-born child because the Rh- mother has not had a chance to build up anti-Rh antibodies to the newborn's Rh+ blood.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900997>

### Question 784

In the diagram of the humerus, which is the lateral epicondyle?

- A
- B
- F
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1903185>

### Question 785

The structure labeled F in the diagram belongs to which group of spinal nerves?

- cervical nerves
- thoracic nerves
- lumbar nerves
- sacral nerves
- coccygeal nerves

Answer: <https://biology-forums.com/index.php?topic=1903758>

### Question 786

The anterior and posterior cruciate ligaments of the knee joint are examples of extracapsular ligaments of the synovial joint of the knee.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900692>

### Question 787

A muscle that acts as a \_\_\_\_\_ stabilizes the origin of the prime mover so that the prime mover may act more efficiently.

- a) antagonist
- b) abductor
- c) fixator
- d) synergist
- e) agonist

Answer: <https://biology-forums.com/index.php?topic=1900739>

### Question 788

Where is the inferior mesenteric ganglion and plexus in the figure?

- E
- F
- G
- M
- N

Answer: <https://biology-forums.com/index.php?topic=1904009>

### Question 789

What labeled structure in the figure increases the blood volume capacity of an atrium?

- B
- G
- D
- F

Answer: <https://biology-forums.com/index.php?topic=1904142>

### Question 790

ATP is produced through chemiosmosis in the cytosol of the cell, and may occur under aerobic or anaerobic conditions.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901167>

### Question 791

In the diagram of a hair root shown, where is the cuticle of the hair?

- A

- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902912>

### Question 792

The cell labeled H in the figure secretes which of the following hormones?

- renin
- progesterone
- aldosterone
- estrogen
- testosterone

Answer: <https://biology-forums.com/index.php?topic=1904295>

### Question 793

In the diagram, which structure helps return a stretched sarcomere to its resting length?

- B
- C
- E
- Both B and C
- All of these choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1903385>

### Question 794

Which of the diagrams in the figure represents a ligand-gated channel?

- A
- B
- C
- D

Answer: <https://biology-forums.com/index.php?topic=1903453>

### Question 795

Which pelvis in the diagram shows the characteristics of a female pelvis?

- A
- B
- Both are male.

Answer: <https://biology-forums.com/index.php?topic=1903205>

### Question 796

Which of the cells in the diagram can be subdivided into categories of small and large versions of this cell type?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904107>

### Question 797

The blood-cerebrospinal fluid barrier does not allow any substances from the blood to enter the CSF.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900883>

### Question 798

In the diagram, where is the trabeculae?



- B
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1902955>

### Question 799

This layer runs deep to the peritoneum on the anterior surface of the kidneys.

- A
- B
- C

Answer: <https://biology-forums.com/index.php?topic=1904258>

### Question 800

One of the following is not a formed element found in blood.

- a) lymphocyte
- b) red blood cell
- c) platelet
- d) white blood cell
- e) all the above are formed elements

Answer: <https://biology-forums.com/index.php?topic=1900982>

### Question 801

Which of the following labeled endocrine glands secretes hormones that regulate blood calcium levels?

- B
- A
- H
- D
- I

Answer: <https://biology-forums.com/index.php?topic=1904082>

### Question 802

Damage to which cranial nerve in the diagram by shingles or Lyme disease produces Bell's palsy?

- F
- G
- H
- I
- L

Answer: <https://biology-forums.com/index.php?topic=1903777>

### Question 803

The linea alba is made up of what structures?

1. the aponeurosis of the rectus abdominis
  2. the aponeurosis of the transversus abdominis
  3. the aponeurosis of the internal and external obliques
- a) 1 only
  - b) 2 only
  - c) 3 only
  - d) 1, 2 & 3
  - e) 2 & 3

Answer: <https://biology-forums.com/index.php?topic=1900756>

### Question 804

The acrosome of a sperm contains the mitochondria needed for ATP production

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901197>

### Question 805

In the diagram, where is the olfactory foramina?

- C
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1903163>

### Question 806

A well-trained athlete would have a slow heart rate called:

- a) bradykinesia
- b) tachycardia
- c) dyspnea
- d) bradycardia
- e) pulse pressure

Answer: <https://biology-forums.com/index.php?topic=1901064>

### Question 807

In the CNS, this structure is produced by oligodendrocytes.

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903452>

### Question 808

The organ that is not a secondary lymphatic organ is?

- a) red bone marrow
- b) spleen
- c) thymus
- d) lymph nodes

Answer: <https://biology-forums.com/index.php?topic=1901076>

### Question 809

Which feature does not apply to the nervous system in comparison to the endocrine system?

- a) neurotransmitters released locally
- b) response occurs in seconds or even hours
- c) affects seen on muscle cells, glands, and neurons
- d) mediator action is close to site of release
- e) very brief duration of action

Answer: <https://biology-forums.com/index.php?topic=1900953>

### Question 810

Failure of gastrulation in an embryo will result in

- a) failure of the development of the three primary germ layers.
- b) lack of trophoblast development.
- c) failure of amnion formation.
- d) lack of chorionic development.
- e) decreased yolk sac development.

Answer: <https://biology-forums.com/index.php?topic=1901243>

### Question 811

Which labeled neuron conducts impulses from the peripheral somatic receptors into the brain or spinal cord?

- A
- B

- C
- More than one answer selection is correct.
- None of the answer selections are correct.

Answer: <https://biology-forums.com/index.php?topic=1903994>

### Question 812

Which labeled structure shown in the diagram is a pouch-like extension that serves to slightly increase the capacity of an atrium?

- F
- E
- G
- I
- D

Answer: <https://biology-forums.com/index.php?topic=1904140>

### Question 813

Identify the optic nerve.

- C
- D
- E
- F
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904058>

### Question 814

Which of the following figures shows tissue found along the developing bones of the embryo?

- A
- B
- C
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1902899>

### Question 815

When walking down stairs or a steep hill, the knee is flexed. Which structure prevents the tibia from sliding too far posteriorly, and the femur from sliding too far anteriorly?

- a) the patellar ligament
- b) the anterior cruciate ligament
- c) the posterior cruciate ligament
- d) medial meniscus
- e) lateral meniscus

Answer: <https://biology-forums.com/index.php?topic=1900684>

### Question 816

Metabolic water contributes about half of the daily water gain.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901187>

### Question 817

Which labeled neuron conducts impulses from the thalamus to the primary somatosensory area of the cerebral cortex?

- A
- B
- C
- More than one answer selection is correct.
- None of the answer selections are correct.

Answer: <https://biology-forums.com/index.php?topic=1903938>

### Question 818

The intrinsic muscles of the foot have their origins and their insertions within the foot.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900861>

### Question 819

The pseudostratified ciliated squamous epithelium found in the laryngopharynx helps moisten air as it passes over that structure.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901099>

### Question 820

Low counts of which two cell types shown in the figure may result from treatment with cortisol?

- A & B
- B & C
- C & D
- D & E
- E & C

Answer: <https://biology-forums.com/index.php?topic=1904122>

### Question 821

The salivary glands, liver, gallbladder, and pancreas develop from the midgut.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901162>

### Question 822

Which of the following vitamins is correctly matched with its principal function?

- a) vitamin A: inhibits catabolism of some fatty acids
- b) vitamin E: essential for absorption of calcium and phosphorus from the GI tract
- c) vitamin K: coenzyme essential for synthesis of clotting factors by the liver
- d) vitamin C: coenzyme required for synthesis of red blood cells
- e) folic acid: works with antibodies and promotes wound healing

Answer: <https://biology-forums.com/index.php?topic=1901185>

### Question 823

Which of the cells in the diagram contains structural adaptations that increase surface area for absorption?

- 1 B
- 2 C
- 3 D
- 4 E
- 3 and 4
- 1 only
- 2 only
- 3 only
- 4 only

Answer: <https://biology-forums.com/index.php?topic=1902873>

### Question 824

Which of the following muscles would adduct the thigh when contracted?

- a) gluteus medius
- b) tensor fasciae latae
- c) quadratus femoris
- d) pectineus
- e) rectus femoris

Answer: <https://biology-forums.com/index.php?topic=1900784>

### Question 825

Which vessel in the diagram is the arcuate artery?

- C
- D
- E
- F
- L

Answer: <https://biology-forums.com/index.php?topic=1904272>

### Question 826

If the pathway shown in the diagram is a sympathetic division pathway, which neurotransmitter acts at the effector?

- Norepinephrine
- Acetylcholine
- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1903971>

### Question 827

Where is the greater splanchnic nerve in the diagram?

- A
- B
- C
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1904023>

### Question 828

The secretory phase of the uterine cycle is associated with

- increased secretion of progesterone and formation of the corpus albicans.
- increased secretion of progesterone and formation of the corpus luteum.
- increased secretion of luteinizing hormone and rupture of the mature follicle.
- increased secretion of estrogen and maturation of the secondary follicle.
- increased secretion of follicle stimulating hormone and ovulation.

Answer: <https://biology-forums.com/index.php?topic=1901230>

### Question 829

Which of the following structures are made of dense regular connective tissue?

- F
- A
- I
- Both F and I
- All of these choices.

Answer: <https://biology-forums.com/index.php?topic=1903379>

### Question 830

Which of the following hormones would increase in a laboratory animal after a thyroidectomy?

- thyroid stimulating hormone (TSH)
  - triiodothyronine (T3)
  - thyrotropin-releasing hormone (TRH)
  - thyroxine (T4)
- 1 only
  - 2 only
  - 3 only
  - 4 only
  - 1 and 3

Answer: <https://biology-forums.com/index.php?topic=1900962>

### Question 831

What does this diagram represent?

Answer: <https://biology-forums.com/index.php?topic=1904156>

### Question 832

Which of the following is not considered an antibody action to disable antigens?

- a) deactivates the complement system
- b) neutralizes bacterial toxins
- c) causes clumping of pathogens
- d) decreases motility of antigens
- e) activates phagocytosis

Answer: <https://biology-forums.com/index.php?topic=1901090>

### Question 833

In the diagram, where is the I band?

- G
- H
- I
- J
- D

Answer: <https://biology-forums.com/index.php?topic=1903387>

### Question 834

Which of the light micrographs in the figure below shows a stratified cuboidal epithelium?

- B
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1902879>

### Question 835

Where is the pulmonary plexus in the diagram?

- A
- E
- D
- B
- G

Answer: <https://biology-forums.com/index.php?topic=1904018>

### Question 836

Which of the labeled structures in the diagram is formed as the result of cartilage being replaced by bone after the cessation of bone growth?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902964>

### Question 837

Conversion of energy from one form to another (for example, from chemical to mechanical energy) usually releases \_\_\_\_\_, some of which is used to maintain normal body temperature.

- a) Activation energy
- b) Potential energy
- c) Kinetic energy

- d) Sweat
- e) Heat

Answer: <https://biology-forums.com/index.php?topic=1900388>

### Question 838

Where in the diagram is the metaphysis?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902947>

### Question 839

Which letter represents the primary gas exchange structure?

- A
- B
- C
- E

Answer: <https://biology-forums.com/index.php?topic=1904194>

### Question 840

Near the diaphysis of a long bone, such as the femur, a large nutrient artery enters the bone through a perforating canal.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900574>

### Question 841

More blood flows through the coronary arteries during ventricular diastole than ventricular systole.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901041>

### Question 842

The mammary glands are supported by suspensory ligaments of the breast located between the skin and the fascia.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901228>

### Question 843

Which of the labeled structures in the diagram represents a type II cutaneous mechanoreceptor that monitors the stretching of skin?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903990>

### Question 844

In the photomicrograph of a portion of thick skin shown below, which layer is the stratum spinosum?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902907>

### Question 845

Which of the following statements is false in reference to heart regulation?

- a) at rest, parasympathetic stimulation predominates
- b) baroreceptors measure the amount of sodium ions present in the blood
- c) sympathetic stimulation triggers the release of norepinephrine
- d) the movement of limbs is monitored by proprioceptors
- e) parasympathetic fibers travel via the vagus nerve

Answer: <https://biology-forums.com/index.php?topic=1901048>

### Question 846

Among isotopes of any particular element, the number of \_\_\_\_\_ can vary, and therefore the mass number of the element will vary.

- a) protons
- b) ions
- c) electrons
- d) neutrons
- e) orbitals

Answer: <https://biology-forums.com/index.php?topic=1900382>

### Question 847

Where is the anterior white column?

Courtesy Michael Ross, University of Florida

- B
- C
- H
- I
- J

Answer: <https://biology-forums.com/index.php?topic=1903754>

### Question 848

Where is the terminal bronchiole?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904196>

### Question 849

What is line F pointing to?

- Pulp cavity
- Cementum
- Root canal
- Alveolar bone
- Gingival sulcus

Answer: <https://biology-forums.com/index.php?topic=1904241>

### Question 850

A person who is heterozygous for a recessive gene will

- a) show the recessive phenotype.
- b) possibly have a child who shows the recessive phenotype.
- c) have two identical alleles.
- d) show a mutation of one allele.
- e) act as a carrier of the recessive gene for male offspring.

Answer: <https://biology-forums.com/index.php?topic=1901266>

### Question 851

This tissue has an extensive extracellular matrix, usually has many blood vessels, and provides oxygen and nutrients to overlying tissues

- a) epithelial tissue
- b) connective tissue



- c) muscular Tissue
- d) nervous tissue

Answer: <https://biology-forums.com/index.php?topic=1900461>

### Question 852

Where is the aorticorenal ganglion in the diagram?

- C
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1903981>

### Question 853

Which structure in the pelvis is where the longest nerve in the body passes?

- C
- D
- F
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1903193>

### Question 854

Which of the following statements about creatine are correct?

- a) some studies have shown it boosts athletic performance when taken as a supplement
- b) some studies have shown no benefit to athletic performance when it is taken as a supplement
- c) it is harmful, and will cause kidney damage
- d) all of these choices are correct
- e) some studies have shown it boosts athletic performance when taken as a supplement and some studies have shown no benefit to athletic performance when it is taken as a supplement

Answer: <https://biology-forums.com/index.php?topic=1900716>

### Question 855

Proteins produced by viruses and cancer cells are processed by exogenous antigens.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901083>

### Question 856

Which of the following is not one of the negative feedback systems that respond to hypovolemic shock?

- a) increased secretion of epinephrine and norepinephrine
- b) release of local vasoconstrictors
- c) release of aldosterone from the adrenal gland
- d) release of antidiuretic hormone
- e) release of renin from the kidneys

Answer: <https://biology-forums.com/index.php?topic=1901065>

### Question 857

This part of a neuron contains the nucleus and cytoplasm of the Schwann's cell that has formed a myelin sheath around the axon.

- C
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1903447>

### Question 858

The major function of red blood cells is

- a) nutrient transport.

- b) cytokine stimulation.
- c) blood cell proliferation.
- d) gas transport.
- e) disease resistance.

Answer: <https://biology-forums.com/index.php?topic=1877803>

### Question 859

Which plexus or nerve shown in the diagram supplies the bronchial tree?

- A
- C
- F
- B
- E

Answer: <https://biology-forums.com/index.php?topic=1904025>

### Question 860

In the diagram of skin shown below, which labeled structure generates fingerprints?

- A
- B
- G
- H
- None of these answer choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1902904>

### Question 861

Identify the bipolar cell layer.

- A
- B
- C
- D

Answer: <https://biology-forums.com/index.php?topic=1904064>

### Question 862

Where is the esophageal plexus in the diagram?

- A
- B
- D
- C
- G

Answer: <https://biology-forums.com/index.php?topic=1903978>

### Question 863

A high count of which of the white blood cells shown in the figure may indicate bacterial infection, stress, or inflammation?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904115>

### Question 864

Some of the benefits of breast-feeding are

1. delivery of beneficial molecules such as maternal IgA.
2. lower incidence of allergy to breast milk than to other types of milk.
3. suppression of ovulation.

- a) 1 only
- b) 2 only
- c) 3 only
- d) 1 and 2 are correct.
- e) 1, 2, and 3 are correct.

Answer: <https://biology-forums.com/index.php?topic=1901265>

### Question 865

Objective changes in a patient's normal body function that can be directly observed or measured by a clinician are referred to as

- a) symptoms.
- b) disorders.
- c) disturbance.
- d) diseases
- e) signs.

Answer: <https://biology-forums.com/index.php?topic=1877754>

### Question 866

What type of chemical bond commonly forms between adjacent water molecules?

- a) molecular bonds
- b) polar ionic bonds
- c) covalent bonds
- d) hydrogen bonds
- e) polar covalent bonds

Answer: <https://biology-forums.com/index.php?topic=1900387>

### Question 867

Identify the thin protective mucous membrane composed of stratified squamous epithelium with numerous goblet cells.

- A and B
- B and D
- C and A
- D and C
- B and E

Answer: <https://biology-forums.com/index.php?topic=1904056>

### Question 868

This is the area where pyloric stenosis occurs.

- E
- F
- G
- B
- I

Answer: <https://biology-forums.com/index.php?topic=1904245>

### Question 869

In which week of embryonic development have upper and lower limb buds become developed enough to be called free upper and lower limbs?

- a) by the 4th week
- b) by the 5th week
- c) by the 6th week
- d) by the 7th week
- e) by the 8th week

Answer: <https://biology-forums.com/index.php?topic=1900638>

### Question 870

Which portion of the spinal cord contains cell bodies and axons of interneurons as well as incoming axons of sensory neurons?

Courtesy Michael Ross, University of Florida

- B
- C

- D
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903755>

### Question 871

Which structure will produce progesterone, estrogens, relaxin and inhibin?

- D
- E
- G
- I
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904283>

### Question 872

Which of these abdominal muscles does not flex or rotate the vertebral column?

- a) rectus abdominis
- b) internal oblique
- c) external oblique
- d) transversus abdominis
- e) quadratus lumborum

Answer: <https://biology-forums.com/index.php?topic=1900758>

### Question 873

Of ionic, covalent, and hydrogen bonds, ionic bonds are the most common type of chemical bonds found in the body.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900404>

### Question 874

Cerebral spinal fluid is produced in which structure(s)?

- a) choroid plexuses
- b) cerebral aqueduct
- c) arachnoid villi
- d) arachnoid granulation
- e) median aperture

Answer: <https://biology-forums.com/index.php?topic=1900882>

### Question 875

Which of the following pairs of terms best describes the concept of membrane potential?

- a) diffusion / facilitated diffusion
- b) concentration gradient / electrical gradient
- c) passive processes / active processes
- d) low concentration / high concentration
- e) selective permeability / osmosis

Answer: <https://biology-forums.com/index.php?topic=1900413>

### Question 876

The radioulnar joint allows a person to turn their hands so that the palms face anteriorly (as in anatomical position) or to face posteriorly. The radioulnar joint is an example of what type of synovial joint?

- a) plane joint
- b) pivot joint
- c) condyloid joint
- d) saddle joint
- e) hinge joint

Answer: <https://biology-forums.com/index.php?topic=1900673>

### Question 877

This muscle is a prime mover (agonist) in extending the fingers.

- a) extensor carpi radialis longus

- b) extensor carpi radialis brevis
- c) extensor digitorum
- d) extensor digiti minimi
- e) extensor carpi ulnaris

Answer: <https://biology-forums.com/index.php?topic=1900777>

### Question 878

Which system of the body is responsible for elimination of wastes and regulating the volume and composition of the blood, including production of red blood cells?

- a) Urinary
- b) Respiratory
- c) Digestive
- d) Endocrine
- e) Nervous

Answer: <https://biology-forums.com/index.php?topic=1900360>

### Question 879

During development in the womb, the fetus by the fifth month is covered and protected by a fatty substance called \_\_\_\_\_.

- a) ectoderm
- b) mesoderm
- c) periderm
- d) mesenchyme
- e) vernix caseosa

Answer: <https://biology-forums.com/index.php?topic=1900523>

### Question 880

Which term defines a group of cells that work together to perform a particular function?

- a) tissue
- b) organ
- c) molecules
- d) compounds
- e) organism

Answer: <https://biology-forums.com/index.php?topic=1877750>

### Question 881

Which body fluid fills the narrow spaces between cells and tissues and directly affects the proper functioning of cells?

- a) lymph
- b) blood plasma
- c) interstitial fluid
- d) intracellular fluid
- e) vitreous body

Answer: <https://biology-forums.com/index.php?topic=1877753>

### Question 882

What type of nervous system pathway is shown in the figure?

- Somatic motor pathway
- Somatic sensory pathway
- Autonomic motor pathway
- Autonomic sensory pathway
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1903915>

### Question 883

Which of the labeled endocrine glands secretes hormones that regulate the basal metabolic rate (BMR)?

- C
- D
- A
- G

• I

Answer: <https://biology-forums.com/index.php?topic=1904081>

### Question 884

Which plane is parasagittal?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902841>

### Question 885

Most of the freely movable joints of the body could be classified both structurally and functionally as \_\_\_\_\_.

- a) cartilaginous and synarthroses
- b) synovial and diarthroses
- c) cartilaginous and amphiarthroses
- d) synovial and amphiarthroses
- e) fibrous and diarthroses

Answer: <https://biology-forums.com/index.php?topic=1900661>

### Question 886

The wider pelvis of females and the greater angle this creates between the femur and the tibia puts females at a greater risk than males for damage to which structure of the knee.

- a) the patellar ligament
- b) the anterior cruciate ligament
- c) the posterior cruciate ligament
- d) articular capsule
- e) medial and lateral patellar retinacula

Answer: <https://biology-forums.com/index.php?topic=1900685>

### Question 887

Which cranial nerve in the diagram has a somatic motor function primarily involved in moving the upper eyelid and eyeball?

- A
- B
- C
- D
- F

Answer: <https://biology-forums.com/index.php?topic=1903769>

### Question 888

The area drained by the thoracic duct is:

- a) lower extremities
- b) upper extremities
- c) upper right trunk, upper right limb and head
- d) lower right trunk, lower right limb, and right side of head and neck
- e) both lower limbs, lower trunk, left side of head and neck, left upper limb

Answer: <https://biology-forums.com/index.php?topic=1901074>

### Question 889

Describe briefly what is occurring at each step in the figure.

Answer: <https://biology-forums.com/index.php?topic=1902864>

### Question 890

Where is the right vagus nerve in the figure?

- A
- B

- C
- H
- K

Answer: <https://biology-forums.com/index.php?topic=1903910>

### Question 891

All of the following are considered organs of the gastrointestinal tract EXCEPT the

- a) pharynx.
- b) small intestine.
- c) gallbladder.
- d) stomach.
- e) esophagus.

Answer: <https://biology-forums.com/index.php?topic=1901128>

### Question 892

Which structure in the diagram is the superior articular process?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903178>

### Question 893

Which of the channels shown in the figure opens and closes randomly?

- A
- B
- C
- D
- All of these choices

Answer: <https://biology-forums.com/index.php?topic=1903455>

### Question 894

In the figure shown, which light micrograph shows cardiac muscle?

- A
- B
- C
- All of these answer choices are correct.
- None of these answer choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1902891>

### Question 895

The sternocleidomastoid muscles serves as important landmarks (both anatomically and surgically) that divide the neck into anterior and posterior triangles. The anterior triangle is bordered inferiorly by the clavicle, and laterally by the posterior border of the sternocleidomastoid, and by the anterior border of the trapezius muscle.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900839>

### Question 896

In the diagram of skin shown below, where is the reticular region of the dermis?

- E
- F
- G
- H
- A

Answer: <https://biology-forums.com/index.php?topic=1902905>

### Question 897

Which type of lipid is a major component of cell membranes?

- a) Fatty acids
- b) Triglycerides
- c) Vitamin D
- d) Phospholipids
- e) Carotene

Answer: <https://biology-forums.com/index.php?topic=1900400>

### Question 898

Where is the hypogastric plexus in the figure?

- J
- K
- D
- F
- N

Answer: <https://biology-forums.com/index.php?topic=1903969>

### Question 899

Which term best applies to a muscle that acts to move a bone away from the midline of the body?

- a) oblique
- b) synergist
- c) flexor
- d) abductor
- e) adductor

Answer: <https://biology-forums.com/index.php?topic=1900740>

### Question 900

Atrial natriuretic peptide helps to regulate the volume and osmolarity of body fluids by

- a) stimulating the desire to drink fluids to quench thirst.
- b) stimulating the secretion of aldosterone.
- c) increasing urinary excretion of sodium and chloride ions accompanied by water.
- d) increasing the permeability of the collecting ducts to water.
- e) increasing urinary reabsorption of sodium and chloride ions accompanied by water.

Answer: <https://biology-forums.com/index.php?topic=1901188>

### Question 901

What area in the figure is the sum of the residual volume and the expiratory reserve volume?

- H
- A
- G
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1904203>

### Question 902

In deep wound healing, an injury has penetrated through to the dermis or even the hypodermis (subcutaneous layer). In this type of wound, the healing process will leave a scar and could involve a loss of some functionality of the area of the wound.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900537>

### Question 903

Which of the light micrographs in the figure below shows the type of epithelial tissue whose functions include filtration, diffusion, osmosis, and secretion in serous membranes?

- A
- B



- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902892>

### Question 904

A projection tract is one which:

- a) consists of axons that conduct nerve impulses to or from the cerebrum
- b) consists of axons that conduct impulses between ipsilateral gyri
- c) includes the corpus callosum as an example
- d) is also known as a commissural tract

Answer: <https://biology-forums.com/index.php?topic=1900893>

### Question 905

Where in the diagram is the proximal epiphysis?

- A
- B
- D
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1902965>

### Question 906

This can be divided into the cortical zone and the juxtamedullary zone.

- A
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1904259>

### Question 907

While playing soccer, Maria sustained an injury in which she over-stretched some of the ligaments in her left knee. No bones or muscles were injured. It would be correct to describe her knee injury as a sprain, and not a strain.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900695>

### Question 908

Which of the following is not one of the quadriceps femoris group of muscles?

1. gracilis
  2. sartorius
  3. vastus medialis
  4. vastus lateralis
- a) 1 only
  - b) 2 only
  - c) 3 only
  - d) 4 only
  - e) 1 and 3

Answer: <https://biology-forums.com/index.php?topic=1900786>

### Question 909

Which condition listed gives rise to individuals that are: somewhat mentally disadvantaged, sterile males with undeveloped testes, scant body hair, and enlarged breasts?

- a) Emesis gravidarum
- b) Deformation
- c) Turners syndrome
- d) Breech presentation
- e) Klinefelters syndrome

Answer: <https://biology-forums.com/index.php?topic=1877839>

### Question 910

A morula is a solid sphere of cells about the size of the original zygote, and still surrounded by the zona pellucida.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901237>

### Question 911

Velocity of blood slows as the cross-sectional area of the vessel decreases.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901061>

### Question 912

Which illustration and radiograph in the figure shows a Pott's fracture?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903149>

### Question 913

Which panel in the figure shows an example of the movement termed opposition?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903226>

### Question 914

Within your body, anabolic reactions occur all the time. Cells of the body use the raw materials derived from the foods you eat (which are first digested into smaller molecules by your digestive system), and build new larger molecules from the smaller molecules that are taken into the cell. What is another name for this type of chemical reaction?

- a) Synthesis
- b) Decomposition
- c) Hydrolysis
- d) Oxidation-reduction
- e) Exchange reactions

Answer: <https://biology-forums.com/index.php?topic=1900390>

### Question 915

An atom whose valence electrons conform to the octet rule is:

- a) more likely to form covalent bonds
- b) more likely to form ionic bonds
- c) more likely to form hydrogen bonds
- d) more likely to become a free radical
- e) less likely to form any bond with another atom

Answer: <https://biology-forums.com/index.php?topic=1900385>

### Question 916

In the diagram, where is the zone of hypertrophic cartilage?

- A
- B
- C
- D

Answer: <https://biology-forums.com/index.php?topic=1902959>

### Question 917

The plantar aponeurosis (plantar fascia) extends from the calcaneus to the phalanges of the toes, and when inflamed is a common source of heel pain (plantar fasciitis).

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900862>

### Question 918

Complex carbohydrates undergo chemical digestion in the GI tract, but monosaccharides do not.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901130>

### Question 919

Collagen fibers are made up of a protein called collagen, which is one of the rarest protein in the body.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900488>

### Question 920

Embryonic folding refers to the process through which

- a) a morula becomes a blastocyst.
- b) the three primary germ layers are formed.
- c) the embryonic disc is converted to a three-dimensional cylinder.
- d) neurulation occurs.
- e) somites form.

Answer: <https://biology-forums.com/index.php?topic=1901248>

### Question 921

Osteocytes within lacunae are only found in compact bone and not within the trabeculae of spongy bone.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900571>

### Question 922

The attachment of a muscles tendon to the stationary bone is called the \_\_\_\_; the attachment of the muscles other tendon to the movable bone is called the \_\_\_\_.

- a) origin, action
- b) insertion, action
- c) origin, insertion
- d) insertion, origin
- e) insertion, action

Answer: <https://biology-forums.com/index.php?topic=1877779>

### Question 923

Which area of the myogram shows sustained contraction with partial relaxation?

- A
- B
- C
- D
- none of these choices

Answer: <https://biology-forums.com/index.php?topic=1903392>

### Question 924

In the diagram of skin shown below, where is the sebaceous gland?

- C
- D
- E
- F
- H

Answer: <https://biology-forums.com/index.php?topic=1902902>

### Question 925

What type of endocytosis allows cells to drink (take up tiny droplets of extracellular fluid)?

- a) exocytosis
- b) pinocytosis
- c) phagocytosis
- d) by means of clathrin-coated pits
- e) transcytosis

Answer: <https://biology-forums.com/index.php?topic=1900417>

### Question 926

Which labeled cell in the diagram will develop into thrombocytes?

- G
- J
- K
- L
- E

Answer: <https://biology-forums.com/index.php?topic=1904111>

### Question 927

This is largest fontanel in size at birth.

- A
- B
- C
- D
- Both A and D

Answer: <https://biology-forums.com/index.php?topic=1903169>

### Question 928

Which of the cervical vertebrae are responsible for permitting the movement of the head seen when saying "yes"?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903172>

### Question 929

The pectoral girdles attach the upper limbs to the axial skeleton and consist of two clavicles, two scapulae, and the manubrium.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900641>

### Question 930

If you wished to evert the foot (turn the sole of the foot outward or laterally), which muscle below would you need to contract?

- a) tibialis anterior
- b) extensor digitorum longus
- c) fibularis longus
- d) gastrocnemius
- e) soleus

Answer: <https://biology-forums.com/index.php?topic=1900788>

### Question 931

For reversible reactions to occur in the human body, one enzyme will catalyze the reaction in a forward direction, but it may require a different enzyme to catalyze the reaction in the reverse direction.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900406>

### Question 932

Which tissue, depending on its location, and functions, is sometimes called endothelia or mesothelia?

- a) simple columnar epithelium
- b) areolar connective tissue
- c) glandular epithelia
- d) simple squamous epithelium
- e) adipose tissue

Answer: <https://biology-forums.com/index.php?topic=1900462>

### Question 933

Which plexus or nerve shown in the diagram supplies the bronchial tree?

- A
- C
- F
- B
- E

Answer: <https://biology-forums.com/index.php?topic=1903929>

### Question 934

Which labeled step(s) represents bleaching of the photopigment?

- 1
- 2
- 3
- 4
- Both 2 and 4

Answer: <https://biology-forums.com/index.php?topic=1904069>

### Question 935

Negatively charged ions such as bicarbonate, chloride, iodide, and nitrate may be absorbed by

1. active transport.
  2. passively following sodium ions.
  3. passively following water through osmosis.
- a) 1 only
  - b) 2 only
  - c) 3 only
  - d) 1 and 2 are correct.
  - e) 1, 2, and 3 are correct.

Answer: <https://biology-forums.com/index.php?topic=1901156>

### Question 936

Formation of granulation tissue at a wound indicates the person is at higher risk for infection.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900496>

### Question 937

The neural plate, neural folds, and neural tube form through the process of

- a) gastrulation.
- b) neurulation.
- c) invagination.
- d) induction.
- e) somatization.

Answer: <https://biology-forums.com/index.php?topic=1901245>

### Question 938

Where is the corticomedullary junction?

- G

- J
- M
- N
- O

Answer: <https://biology-forums.com/index.php?topic=1904267>

### Question 939

Which cranial nerve in the diagram has an autonomic motor function primarily involved in the secretion of saliva and tears?

- B
- C
- D
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1903776>

### Question 940

Thyroid hormones and insulin-like growth factors help to regulate

- a) facilitated diffusion of glucose into cells.
- b) active transport of amino acids into cells.
- c) glycogenesis.
- d) protein synthesis.
- e) lipogenesis.

Answer: <https://biology-forums.com/index.php?topic=1901177>

### Question 941

In addition to a thicker stratum corneum and the presence of a stratum lucidum, the thick skin of the palms and fingertips of the hands and of the soles of the feet have a denser array of sense receptors than thinner skin found elsewhere on the body, and also is hairless.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900535>

### Question 942

Which of the following best describes the events occurring at point A in the diagram of deep wound healing shown below?

- Blood clot is forming.
- New collagen fibers are forming.
- Damaged blood vessels are being repaired.
- Epithelium is migrating across wound.
- Scar tissue is forming.

Answer: <https://biology-forums.com/index.php?topic=1902920>

### Question 943

All of the following are ligaments which hold the uterus in place EXCEPT the

- a) broad ligaments.
- b) uterosacral ligaments.
- c) cardinal ligaments.
- d) round ligaments.
- e) None of these choices is correct.

Answer: <https://biology-forums.com/index.php?topic=1901223>

### Question 944

Which structure in the figure is a lymphatic vessel?

- B
- C
- D
- J
- G

Answer: <https://biology-forums.com/index.php?topic=1904162>

### Question 945

Stretching of the GI tract by chyme will activate a gastrointestinal reflex pathway.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901133>

### Question 946

Mitosis can occur during any phase of the cell cycle.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900450>

### Question 947

In the diagram, which one represents a hypertonic solution

- A
- B
- C
- Both B and C
- All of these choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1902863>

### Question 948

Where is the spinous process in the diagram?

- B
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1903170>

### Question 949

Most people don't notice they've lost muscle strength until around age 60-65. By this time, what percentage of muscle mass has the average person lost?

- a) 10%
- b) 20%
- c) 30%
- d) 40%
- e) 50%

Answer: <https://biology-forums.com/index.php?topic=1900732>

### Question 950

How many extrinsic eye muscles are responsible for moving each eye?

- a) 10
- b) 12
- c) 6
- d) 4
- e) 20

Answer: <https://biology-forums.com/index.php?topic=1877798>

### Question 951

As long bones form in the fetus, the formation of the medullary cavity occurs because of the actions of osteoblast cells.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900576>

### Question 952

\_\_\_\_\_ represent the first haploid stage of spermatogenesis.

- a) Spermatogonia
- b) Primary spermatocytes

- c) Secondary spermatocytes
- d) Spermatids
- e) Spermatozoa

Answer: <https://biology-forums.com/index.php?topic=1901196>

### Question 953

In the figure, what represents a saddle joint?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903208>

### Question 954

Dermal papillae give rise to a persons fingerprints and footprints.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900529>

### Question 955

The quadriceps tendon and the patellar ligament are continuous with each other the quadriceps tendon blends into the patellar ligament.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900858>

### Question 956

On the diagram, where is the outer most layer of connective tissue encircling the entire muscle

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903376>

### Question 957

Why is Calorie always spelled with a capital C?

- a) It is named after Dr. Calorie
- b) It is named for the country where it was discovered
- c) It is named after the province where it was discovered
- d) To distinguish it from the chemistry term calory
- e) None of these choices

Answer: <https://biology-forums.com/index.php?topic=1877816>

### Question 958

Secretions from the liver and gallbladder are united in the common bile duct and enter the duodenum through the sphincter of the hepatopancreatic ampulla.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901149>

### Question 959

Which is not an event that occurs during the process of gustation?

- a) salty foods trigger opening of the sodium ion channels
- b) a tastant is dissolved in saliva
- c) the site of taste transduction occurs at the basal cells
- d) hydrogen ion channels are triggered by sour foods
- e) depolarization causes release of neurotransmitters

Answer: <https://biology-forums.com/index.php?topic=1900939>



### Question 960

In the figure shown, which light micrograph shows areolar connective tissue?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902882>

### Question 961

Where is the splenius capitis?

- A
- B
- C
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903438>

### Question 962

Which vessel does not supply the myocardium with blood?

- a) coronary sinus
- b) left coronary artery
- c) circumflex branch
- d) marginal branch
- e) posterior interventricular branch

Answer: <https://biology-forums.com/index.php?topic=1901005>

### Question 963

Which structure in the figure is the right lymphatic duct?

- D
- C
- F
- H
- A

Answer: <https://biology-forums.com/index.php?topic=1904166>

### Question 964

Most of the muscles that move the upper leg (thigh) originate on the femur and insert on the pelvic girdle.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900855>

### Question 965

Postganglionic neurons from the otic ganglion supply the

- parotid gland.
- heart.
- lungs.
- liver.
- ureter.

Answer: <https://biology-forums.com/index.php?topic=1903962>

### Question 966

Which of the labeled structures in the diagram senses touch, pressure and slow vibrations?

- A
- B

- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904030>

### Question 967

Which of the following is the correct sequence of events in receptor-mediated endocytosis shown in the figure?

- binding > degradation in lysosomes > vesicle formation > uncoating > recycling of receptors to plasma membrane > fusion with endosome
- degradation in lysosomes > fusion with endosome > recycling of receptors to plasma membrane > uncoating > vesicle formation > binding
- degradation in lysosomes > recycling of receptors to plasma membrane > fusion with endosome > uncoating > vesicle formation > binding
- binding > vesicle formation > uncoating > fusion with endosome > recycling of receptors to plasma membrane > degradation in lysosomes
- binding > uncoating > vesicle formation > fusion with endosome > degradation in lysosomes > recycling of receptors to plasma membrane

Answer: <https://biology-forums.com/index.php?topic=1902870>

### Question 968

The primary neurological function of all three pairs of cerebellar peduncles is to relay information between the cerebellum and the skeletal muscles.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900889>

### Question 969

A secondary invasion of an antigen may produce no signs or symptoms due to the action of:

- a) cytotoxic T cells
- b) helper T cells
- c) memory cells
- d) B cells
- e) plasma cells

Answer: <https://biology-forums.com/index.php?topic=1901086>

### Question 970

Which of the following structures of the vulva is homologous to the scrotum?

- a) mons pubis
- b) labia majora
- c) labia minora
- d) clitoris
- e) vestibule

Answer: <https://biology-forums.com/index.php?topic=1901227>

### Question 971

Where on the diagram is the femoral area?

- D
- E
- F
- J
- K

Answer: <https://biology-forums.com/index.php?topic=1902837>

### Question 972

The primary reason that the sympathetic division of the ANS produces immediate responses within the body is based on the concept of divergence.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900908>

### Question 973

The muscles, bones, other connective tissues, and the peritoneum are all derived from the endoderm.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901244>

### Question 974

The fibula only articulates with the femur at its proximal end.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900653>

### Question 975

In the diagram, which bone is the short bone?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903151>

### Question 976

In the passive processes of simple diffusion and osmosis, substances and water move down their concentration gradients, moving from areas of higher concentrations to areas of lower concentrations.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900438>

### Question 977

Which labeled structure in the figure is an osteocyte?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903148>

### Question 978

In the diagram, where is the epiphyseal vein?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902956>

### Question 979

Which of the following is considered to be a modified respiratory movement?

1. coughing
  2. Valsalva maneuver
  3. costal breathing
- a) 1 only  
b) 2 only  
c) 3 only  
d) 1 and 2 are correct  
e) 1, 2, and 3 are correct

Answer: <https://biology-forums.com/index.php?topic=1901110>

### Question 980

Which of the following disorders involving the organ labeled E can result from viruses, drugs and chemicals such as alcohol?

- heartburn
- mumps
- pancreatitis
- hepatitis
- vomiting

Answer: <https://biology-forums.com/index.php?topic=1904254>

### Question 981

The reticular activating system (RAS) is a part of the reticular formation. The primary function of the descending fibers of the RAS is to maintain muscle tone.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900887>

### Question 982

Identify the structure that secretes a fluid that keeps the eyelids from sticking to each other.

- D
- E
- F
- G
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904057>

### Question 983

Chromosome #15 is considered

- a) A sex chromosome
- b) An autosome
- c) The SRY chromosome
- d) A linked gene
- e) A transposon

Answer: <https://biology-forums.com/index.php?topic=1877837>

### Question 984

In the diagram, where is the nutrient artery?

- D
- E
- F
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1902957>

### Question 985

Which plexus or nerve shown in the diagram supplies the renal arteries?

- B
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1903983>

### Question 986

Which cells are the main sites of gas exchange?

- A
- B
- C
- D
- All of these choices

Answer: <https://biology-forums.com/index.php?topic=1904198>

### Question 987

Where is the depressor anguli oris?

- K
- L

- M
- N
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1903413>

### Question 988

The medial and lateral epicondyles are features of the ulna which serve as attachment sites for muscles of the forearm.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900645>

### Question 989

Smooth muscle fibers do not have striations like skeletal and cardiac muscle cells do. This is because:

- a) the sarcomeres are smaller than in cardiac muscle cells and skeletal fibers, and arent visible even when smooth muscle fibers are examined microscopically
- b) smooth muscle fibers contain only intermediate filaments, which arent arranged in sarcomeres
- c) smooth muscle fibers contain thin and thick filaments, as well as intermediate filaments, but none of them are arranged in sarcomeres
- d) visceral smooth muscle fibers dont have striations, but multiunit smooth muscle cells do, but these cells are more rare, and so we rarely have a chance to view them with a microscope
- e) both b and d are correct

Answer: <https://biology-forums.com/index.php?topic=1900729>

### Question 990

Which of the following nerves provides innervation for the external genitals?

- Oculomotor (III) nerve (cranial nerve III)
- Facial (VII) nerve (cranial nerve VII)
- Glossopharyngeal (IX) nerve (cranial nerve IX)
- Vagus (X) nerve (cranial nerve X)
- Pelvic splanchnic nerve

Answer: <https://biology-forums.com/index.php?topic=1903963>

### Question 991

Which of the labeled layers in the diagram of the arterial wall consists mainly of elastic fibers and smooth muscle fibers?

- A
- B
- C
- A and B
- A, B and C

Answer: <https://biology-forums.com/index.php?topic=1904147>

### Question 992

The stomach is \_\_\_\_\_ to the urinary bladder.

- lateral
- medial
- distal
- inferior
- superior

Answer: <https://biology-forums.com/index.php?topic=1902840>

### Question 993

Because it is an immovable joint, the sagittal suture, which joins the two parietal bones of the skull, is classified as a \_\_\_\_\_.

- a) diarthrosis
- b) synarthrosis
- c) synovial joint
- d) amphiarthrosis
- e) cartilaginous joint

Answer: <https://biology-forums.com/index.php?topic=1900660>

### Question 994

Which neurotransmitter is released by the preganglionic neuron at the autonomic ganglion in the diagram?

- Norepinephrine
- Acetylcholine
- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1903920>

### Question 995

Which of the labeled structures in the diagram are composed of trabeculae, which are bony structures that lack osteons?

- B
- C
- D
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1902969>

### Question 996

The diaphragm separates which two body cavities?

- a) pelvic cavity from the abdominal cavity
- b) cranial cavity from the vertebral cavity
- c) thoracic cavity from the abdominopelvic cavity
- d) mediastinum from the thoracic cavity
- e) the pelvic cavity from the inguinal cavity

Answer: <https://biology-forums.com/index.php?topic=1900373>

### Question 997

As the bronchial tree branches from bronchi to bronchioles, cartilage decreases while smooth muscle increases.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901102>

### Question 998

In the diagram, where is the effort?

- A
- B
- C
- All of these choices
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1903399>

### Question 999

Which would be an example of a condition in the body not controlled by autonomic reflexes?

- a) breathing rate and depth
- b) rate of urine formation
- c) tracking a bird flying by
- d) digestion of your evening meal
- e) blood pressure change during exercise

Answer: <https://biology-forums.com/index.php?topic=1900916>

### Question 1000

Which of the following is not an example of hemostasis?

- a) platelet plug formation
- b) maintenance of the normal body temperature
- c) applying a tourniquet
- d) vascular spasm
- e) blood clotting

Answer: <https://biology-forums.com/index.php?topic=1900992>

### Question 1001

Chuck is at a pizza parlor with friends and is ordering sodas for his group. The place is noisy and the waiter didn't hear the number of sodas Chuck ordered. He holds up a hand and spreads his fingers wide apart to indicate he wants five large sodas. What type of movement of his fingers was this?

- a) flexion
- b) extension
- c) hyperextension
- d) abduction
- e) adduction

Answer: <https://biology-forums.com/index.php?topic=1900668>

### Question 1002

What type of joint is shown in the diagram?

- Suture
- Syndesmosis
- Symphysis
- Cartilaginous
- Synovial

Answer: <https://biology-forums.com/index.php?topic=1903206>

### Question 1003

Which structure in the figure is the ventricular fold?

- F
- D
- C
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1904235>

### Question 1004

Excess amino acids in the body are

- a) Excreted in urine
- b) Excreted in feces
- c) Converted into glucose
- d) Stored as ATP
- e) Converted into proteins

Answer: <https://biology-forums.com/index.php?topic=1877813>

### Question 1005

Along with sweating, which other responses by skin assists with thermoregulation?

- a) blood vessels near the skin can dilate, increasing blood flow and heat loss
- b) additional secretion of sebum coats the skin and protects it against the sun
- c) apocrine sweat glands add their sweat to eccrine glands to increase evaporative cooling
- d) as a response to cold, blood vessels dilate to bring more warmth to the skin's surface
- e) all of these occur

Answer: <https://biology-forums.com/index.php?topic=1900518>

### Question 1006

Which structure consists of calcified connective tissue?

- A
- B
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1904240>

### Question 1007

Where is the larynx?

- I
- M
- L
- N
- O

Answer: <https://biology-forums.com/index.php?topic=1904177>

### Question 1008

The extrinsic muscles of the tongue have their origins on which of the following bones of the skull?

1. hyoid
  2. maxilla
  3. temporal
  4. mandible
- a) 1 only
  - b) 2 only
  - c) 3 only
  - d) 4 only
  - e) 1, 3 and 4

Answer: <https://biology-forums.com/index.php?topic=1900752>

### Question 1009

Where is the gracilis?

- H
- I
- J
- K
- L

Answer: <https://biology-forums.com/index.php?topic=1903443>

### Question 1010

What type of nervous system pathway is shown in the figure?

- Somatic motor pathway
- Somatic sensory pathway
- Autonomic motor pathway
- Autonomic sensory pathway
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1903970>

### Question 1011

In the diagram of the tibia and fibula, where is the tibial tuberosity?

- B
- C
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1903198>

### Question 1012

As the spinal cord exits the cranium, it passes through a large opening in the occipital bone called the \_\_\_\_\_.

- a) greater trochanter
- b) foramen magnum
- c) occipital condyle
- d) external auditory meatus
- e) mental foramen

Answer: <https://biology-forums.com/index.php?topic=1900584>

### Question 1013

Which labeled cell in the diagram is a WBC?



- A
- B
- C
- Both B and C
- All of these choices

Answer: <https://biology-forums.com/index.php?topic=1904108>

### Question 1014

Gases such as oxygen and carbon dioxide can pass through a plasma membrane by simple diffusion, because they are uncharged, nonpolar molecules.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900437>

### Question 1015

Which of the neurons in the diagram is modified in a manner that helps enhance the sensitivity of the receptor?

- A
- B
- C
- None of these choices
- All of these choices

Answer: <https://biology-forums.com/index.php?topic=1903931>

### Question 1016

The muscle that elevates the eyelid (opens the eye), unlike most of the extrinsic muscles of the eye, is innervated by the abducens (VI) nerve.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900833>

### Question 1017

The stomach and liver are contralateral.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900378>

### Question 1018

Which of the following nerves provides innervation for the external genitals?

- Oculomotor (III) nerve (cranial nerve III)
- Facial (VII) nerve (cranial nerve VII)
- Glossopharyngeal (IX) nerve (cranial nerve IX)
- Vagus (X) nerve (cranial nerve X)
- Pelvic splanchnic nerve

Answer: <https://biology-forums.com/index.php?topic=1903908>

### Question 1019

Which labeled structure shown in the diagram is a remnant of fetal circulation that is not directly involved in adult circulation?

- A
- B
- H
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904137>

### Question 1020

Which type of circuit is used to lengthen the output signal in physiological processes like regulation of the breathing pattern?

- A
- B
- C

• D

Answer: <https://biology-forums.com/index.php?topic=1903458>

### Question 1021

The temporomandibular joint is synovial, has a meniscus for additional shock absorption, and is the largest freely movable joint of the skull.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900700>

### Question 1022

What types of cells are located in area C in the figure?

- B cells and follicular dendritic cells
- B cells and plasma cells
- macrophages and B cells
- T cells and dendritic cells
- plasma cells and macrophages

Answer: <https://biology-forums.com/index.php?topic=1904172>

### Question 1023

During translation, one mRNA molecule is usually read by more than one ribosome at a time so that several proteins can be synthesized at one time.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900449>

### Question 1024

Cells are able to transport materials from one region of the cell to another just as the body is able to transport substances to different locations, or skeletal muscles (working with your skeleton) can transport you from the sofa to the refrigerator. What basic life process is illustrated by this description?

- a) Metabolism
- b) Growth
- c) Movement
- d) Differentiation
- e) Reproduction

Answer: <https://biology-forums.com/index.php?topic=1900363>

### Question 1025

In the diagram, where is the nasal bone?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903159>

### Question 1026

In the figure of a sagittal section of a fingernail shown below, where is the nail matrix?

- A
- C
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1902916>

### Question 1027

Which of the following molecules found in skeletal muscle cells binds oxygen that can later be used during aerobic metabolism to help generate ATP?

- a) creatine
- b) creatine phosphate
- c) myoglobin
- d) titin

e) glycogen

Answer: <https://biology-forums.com/index.php?topic=1900711>

### Question 1028

A skin graft would be needed if a person damaged the upper layers of the skin down to the stratum granulosum.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900530>

### Question 1029

The distal phalanges articulate with the metacarpals and the proximal phalanges.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900648>

### Question 1030

In the medullary respiratory center, the dorsal respiratory group establishes the basic rhythm of quiet breathing, while the ventral respiratory group remains inactive.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901123>

### Question 1031

Dietary glucose is transported into a cell against its concentration gradient with the aid of membrane proteins called Na<sup>+</sup>/glucose \_\_\_\_\_.

- a) aquaporins
- b) channel proteins
- c) receptor proteins
- d) symporters
- e) antiporters

Answer: <https://biology-forums.com/index.php?topic=1900416>

### Question 1032

Bone tissue stores 99% of the body's calcium. Calcium plays important roles beyond the mineralization of bones. The exchange of calcium between bone and body fluids (especially the blood) is regulated by several hormones. Which of the following is the most important hormone regulating calcium exchange?

- a) vitamin D (calcitriol)
- b) calcitonin
- c) thyroid hormones (T3 and T4)
- d) human growth hormone (hGH)
- e) parathyroid hormone (PTH)

Answer: <https://biology-forums.com/index.php?topic=1900558>

### Question 1033

Which statement is true about capillary exchange?

- a) the most important method is bulk flow
- b) transcytosis is primarily used to transport carbohydrate-insoluble substances
- c) substances pass through the capillaries via fenestrations
- d) sinusoids do not allow passage of proteins
- e) bulk flow is considered an active process

Answer: <https://biology-forums.com/index.php?topic=1901056>

### Question 1034

When oxygen is plentiful inside a skeletal muscle cell, what happens to the pyruvic acid that is formed during glycolysis?

- a) it is converted into lactic acid
- b) it diffuses into mitochondria to be broken down to generate ATP
- c) it diffuses out of the cell and into the bloodstream
- d) it is used to convert creatine into creatine phosphate
- e) it is converted into glycogen

Answer: <https://biology-forums.com/index.php?topic=1900717>

### Question 1035

Which of the following represents an ion channel?

- F
- C
- D
- A
- E

Answer: <https://biology-forums.com/index.php?topic=1902868>

### Question 1036

Which structures in the figure together secrete liquid components of semen?

- B, C, G
- B, C, F
- B, D, I
- B, C, L
- B, H, L

Answer: <https://biology-forums.com/index.php?topic=1904287>

### Question 1037

In the cell cycle, cells can progress from G1 to S to G2, and to mitosis and cytokinesis. The timing of these events is controlled by which of the following?

- a) cyclins
- b) cyclin-dependent protein kinases (Cdks)
- c) actin myofilaments
- d) centrosome
- e) cyclin-Cdk complexes

Answer: <https://biology-forums.com/index.php?topic=1900434>

### Question 1038

Which of the labeled structures in the diagram serve as attachment sites for tendons of the shoulder muscles?

- A, B
- B, C, D
- A, B, C,
- A, B, C, D
- A, C, D, E

Answer: <https://biology-forums.com/index.php?topic=1903182>

### Question 1039

Which portion of the inner ear is divided into three channels?

- C
- G
- H
- J
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904073>

### Question 1040

The hyoid bone does not directly articulate with any other bones.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900607>

### Question 1041

The blastocyst orients with the outer cell mass towards the endometrium of the uterus.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901239>

### Question 1042

Which of the following is an unpaired cranial bone?

1. frontal bone
  2. occipital bone
  3. temporal bone
  4. parietal bone
- a) 1 only
  - b) 2 only
  - c) 3 only
  - d) 4 only
  - e) 1 and 2

Answer: <https://biology-forums.com/index.php?topic=1900588>

### Question 1043

The body parts represented by the largest area on the somatosensory map are the:

- a) trunk
- b) fingers
- c) shoulders
- d) thighs
- e) legs

Answer: <https://biology-forums.com/index.php?topic=1900928>

### Question 1044

Which of the bones below is not part of a pair of bones?

- a) nasal
- b) sphenoid
- c) parietal
- d) zygomatic
- e) temporal

Answer: <https://biology-forums.com/index.php?topic=1900587>

### Question 1045

Which gland is divided into two distinct functional units?

- a) thyroid
- b) pineal
- c) pituitary
- d) thalamus
- e) hypothalamus

Answer: <https://biology-forums.com/index.php?topic=1900960>

### Question 1046

Where is the latissimus dorsi?

- A
- B
- F
- G
- I

Answer: <https://biology-forums.com/index.php?topic=1903401>

### Question 1047

Arthritis of the vertebral column is rare, as articular surfaces between vertebrae don't lose their articular cartilages (which protect the articular surfaces).

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900609>

### Question 1048

Stretching is most effective at reducing injury and promoting greater flexibility if it is done over the course of many weeks, and always when the muscle is cold (before beginning to exercise).

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900727>

### Question 1049

Preganglionic neurons are supplied to the submandibular ganglion by which cranial nerve?

- Oculomotor (III) nerve (cranial nerve III)
- Facial (VII) nerve (cranial nerve VII)
- Glossopharyngeal (IX) nerve (cranial nerve IX)
- Vagus (X) nerve (cranial nerve X)
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1903906>

### Question 1050

Which labeled structure in the figure represents the only potential pathway for conducting action potentials from the atria to the ventricles?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904145>

### Question 1051

Which of the following extrinsic eye muscles would make it possible for you to look upward (elevation of the eyeball)?

1. superior rectus
2. inferior rectus
3. inferior oblique

- a) 1 only
- b) 2 only
- c) 3 only
- d) 1 and 3
- e) 2 and 3

Answer: <https://biology-forums.com/index.php?topic=1900747>

### Question 1052

The muscles of the pelvic floor originate on the pubis and \_\_\_\_\_, and insert onto soft tissues and the \_\_\_\_\_.

- a) anterior inferior iliac spine / ischial spine
- b) posterior superior iliac spine / sacrum
- c) ischial spine / coccyx
- d) sacrum / coccyx
- e) anterior inferior iliac spine / coccyx

Answer: <https://biology-forums.com/index.php?topic=1900762>

### Question 1053

Postganglionic neurons from the otic ganglion supply the

- parotid gland.
- heart.
- lungs.
- liver.
- ureter.

Answer: <https://biology-forums.com/index.php?topic=1904003>

### Question 1054

Genetic disorders in a fetus can be detected through

1. amniocentesis.
2. chorionic villi sampling.
3. ultrasonography.

- a) 1 only
- b) 2 only
- c) 3 only

- d) 1 and 2 are correct.  
e) 1, 2, and 3 are correct.

Answer: <https://biology-forums.com/index.php?topic=1901256>

### Question 1055

The homeostasis of the body is controlled through a series of steps called a feedback system or feedback loop. One component of such systems is a control center. Which of the following organs would frequently serve as the control center for a feedback system (remember, the control center evaluates the disruption to homeostasis, and it also triggers a response)?

- a) Skeletal muscles  
b) Brain  
c) Nerve endings in the skin  
d) Blood and lymphatic fluid  
e) Sweat glands

Answer: <https://biology-forums.com/index.php?topic=1900365>

### Question 1056

In what part of a cell would you find most of a cell's genetic material?

- a) Plasma membrane  
b) Cytoplasm  
c) Nucleus  
d) Mitochondrion  
e) Centrosome

Answer: <https://biology-forums.com/index.php?topic=1900410>

### Question 1057

The best example of referred pain is:

- a) shoulder pain while throwing a baseball  
b) pain still present several minutes after stubbing your toe  
c) pain felt into the left arm during a heart attack  
d) pain down your leg from a pinched nerve in your back

Answer: <https://biology-forums.com/index.php?topic=1900925>

### Question 1058

Triglycerides are continually stored in adipose cells, released, transported in the blood, and redeposited in other adipose cells.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901172>

### Question 1059

Faster healing with fewer scars in the young can be explained by which of the following factors?

- a) better blood supply to tissues  
b) better intake of nutrients in a younger person  
c) more metabolically active cells  
d) all of these are factors in faster and better healing  
e) none of these are factors in faster and better healing

Answer: <https://biology-forums.com/index.php?topic=1900486>

### Question 1060

Appositional growth of cartilage only occurs in childhood and adolescence.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900491>

### Question 1061

Which of the following endocrine disorders is the individual shown in this picture suffering from?

Lester Bergman/Project Masters, Inc.

- Acromegaly
- Graves' Disease
- Goiter
- Cushing's syndrome
- Giantism

Answer: <https://biology-forums.com/index.php?topic=1904101>

### Question 1062

Where is the pulmonary plexus in the diagram?

- A
- E
- D
- B
- G

Answer: <https://biology-forums.com/index.php?topic=1903977>

### Question 1063

Which is formed from the fusion of as many as 50 monocytes (a type of white blood cell)?

- a) osteogenic cell
- b) osteoblast
- c) osteocyte
- d) osteoclast

Answer: <https://biology-forums.com/index.php?topic=1900547>

### Question 1064

Actual growth of the nail occurs in the \_\_\_\_\_ .

- a) hyponichium
- b) eponychium
- c) lunula
- d) nail root
- e) nail matrix

Answer: <https://biology-forums.com/index.php?topic=1900516>

### Question 1065

In the diagram, where do pluripotent stem cells come from?

- A
- B
- C
- D
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904154>

### Question 1066

All of the muscles of the superficial posterior (extensor) compartment have at least one of their origins on the interosseus membrane between the radius and ulna.

[b]True or False?[b]

Answer: <https://biology-forums.com/index.php?topic=1900853>

### Question 1067

This type of junction contains tiny fluid-filled tunnels called connexons which allow the movement of ions and small molecules between cells. It is found between muscle cells of the heart and in organs with smooth muscle tissue such as the gastrointestinal tract.

- a) tight junctions
- b) gap junctions
- c) desmosomes
- d) hemidesmosomes
- e) adherens junctions

Answer: <https://biology-forums.com/index.php?topic=1900458>

### Question 1068

Which structure in the figure is the basement membrane?

- A
- B
- D



- F
- H

Answer: <https://biology-forums.com/index.php?topic=1904300>

### Question 1069

In terms of bone health, why would a physician advise an older patient to do more weight-bearing activity such as walking, jogging, or use of moderate weights?

- it promotes normal bone remodeling
- osteoblasts deposit more minerals salts and collagen fibers as a response to mechanical stress
- being sedentary (not physically active) promotes bone loss through resorption by osteoclasts
- bone formation in stressed bones is stimulated by the tug of muscles (when exercising)
- all of these explain why a physician would give such advice to a patient

Answer: <https://biology-forums.com/index.php?topic=1900565>

### Question 1070

A viral infection has damaged a patients tectospinal tract. What signs of this damage probably helped the physicians diagnose the problem?

Answer: <https://biology-forums.com/index.php?topic=1877793>

### Question 1071

Which of the following does NOT contribute to the longer lasting and more widespread effects observed with sympathetic activation versus parasympathetic activation?

- Norepinephrine is more slowly removed from synapses than ACh.
- Additional norepinephrine is released from the adrenal gland.
- Greater divergence occurs in sympathetic neural pathways.
- Blood flow to the hypothalamus is decreased when sympathetic activation occurs.

Answer: <https://biology-forums.com/index.php?topic=1877789>

### Question 1072

Discuss the difference(s) between an endocrine and an exocrine gland.

Answer: <https://biology-forums.com/index.php?topic=1877776>

### Question 1073

In the diagram, where are the trabeculae carneae?

- D
- E
- F
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1904124>

### Question 1074

The fibrous capsule of a synovial joint is a thickened continuation of the periosteum of the bones that articulate at the joint.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900691>

### Question 1075

Water soluble vitamins (B vitamins and vitamin C) can be easily absorbed through the skin, but absorption of the fat soluble vitamins (vitamin A, D, E and K) is minimal.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900536>

### Question 1076

Most water soluble hormones must be attached to a transport protein in order to be circulated.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900957>

### Question 1077

Where is the orbicularis oculi?

- D
- E
- F
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1903409>

### Question 1078

Which cranial or facial bone has the cribriform plate, a porous structure through which the olfactory nerves pass into the nasal cavity?

- a) temporal bone
- b) sphenoid bone
- c) ethmoid bone
- d) lacrimal bone
- e) nasal bone

Answer: <https://biology-forums.com/index.php?topic=1900591>

### Question 1079

In terms of percentage of body mass, what is the most abundant chemical element in the body?

- a) Carbon
- b) Hydrogen
- c) Oxygen
- d) Calcium
- e) Phosphorus

Answer: <https://biology-forums.com/index.php?topic=1900379>

### Question 1080

Which of the labeled structures in the diagram of the trigeminothalamic pathway is a second-order neuron?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904045>

### Question 1081

Lymph travels from the medullary sinus to which structure in the figure?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904169>

### Question 1082

A skeletal muscle fiber can produce ATP in a variety of ways (metabolic pathways), however one method produces enough ATP to support physical activity for many hours. Which statement below is correct about this pathway?

- a) This is the pathway that produces lactic acid.
- b) This is the pathway that uses creatine phosphate to convert ADP to ATP.
- c) This pathway is anaerobic.
- d) This pathway is aerobic.
- e) This is the pathway that produces lactic acid and is anaerobic.

Answer: <https://biology-forums.com/index.php?topic=1900718>

### Question 1083

Which of the following is not true when comparing the direct and indirect motor pathways?

- a) the direct motor pathways are also called the pyramidal pathways

- b) the indirect motor pathways consist of three major tracts
- c) the lateral corticospinal tracts are a component of the direct motor pathways
- d) 90% of the axons decussate in the medulla oblongata in the direct motor pathways
- e) the rubrospinal tracts are a part of the indirect motor pathways

Answer: <https://biology-forums.com/index.php?topic=1900932>

### Question 1084

Which one of the following muscles that move the scapula is innervated by the Accessory (XI) nerve?

- a) trapezius
- b) levator scapulae
- c) serratus anterior
- d) pectoralis minor
- e) rhomboid major and minor

Answer: <https://biology-forums.com/index.php?topic=1900770>

### Question 1085

The tibialis anterior is important for dorsiflexion of the foot.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900860>

### Question 1086

Describe what is happening in the diagram.

Answer: <https://biology-forums.com/index.php?topic=1904160>

### Question 1087

The superior mesenteric ganglion receives nervous input from the

- lesser splanchnic nerve.
- least splanchnic nerve.
- greater thoracic splanchnic nerve.
- a and b only
- a, b, and c

Answer: <https://biology-forums.com/index.php?topic=1904001>

### Question 1088

Visceral pain coming from the urinary bladder is referred to which location(s) in the diagram?

- D
- F
- E
- H
- G

Answer: <https://biology-forums.com/index.php?topic=1904053>

### Question 1089

Shivering on a cold day to maintain body temperature is an example of energy homeostasis.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901181>

### Question 1090

Before mRNA can be used in translation (the making of a new protein), nonfunctional segments of the gene that have been transcribed into the strand of pre-mRNA have to be edited out. The nonfunctional parts of the gene are cut out (and the functional parts spliced together) by a special type of enzyme. What are these enzymes called?

- a) introns
- b) exons
- c) genomes
- d) snRNPs (snurps)
- e) polyribosomes

Answer: <https://biology-forums.com/index.php?topic=1900431>

### Question 1091

Muscles of the \_\_\_\_ assist in urination, defecation, erection of the penis or clitoris, and ejaculation.

- a) thorax
- b) abdomen
- c) perineum
- d) vertebral column
- e) none of these choices

Answer: <https://biology-forums.com/index.php?topic=1900764>

### Question 1092

The disorder shown in one of the identical twins seen in this figure is due to a hypersecretion of hormones by which endocrine gland?

From New England Journal of Massachusetts Medical Society, February 18, 1999, vol.340, No. 7, Page 524.

- Thyroid gland
- Pineal gland
- Parathyroid gland
- Pituitary gland
- Pancreas

Answer: <https://biology-forums.com/index.php?topic=1904099>

### Question 1093

What type of cell is located in area B in the figure?

- B cells
- dendritic cells
- macrophages
- T cells
- plasma cells

Answer: <https://biology-forums.com/index.php?topic=1904171>

### Question 1094

Briefly describe what is happening in each step of fracture repair shown in the diagram.

Answer: <https://biology-forums.com/index.php?topic=1902961>

### Question 1095

Which layer of the arterial wall is primarily composed of elastic and collagen fibers?

- a) tunica interna
- b) tunica media
- c) tunica externa
- d) tunica albuginea
- e) tunica fascia

Answer: <https://biology-forums.com/index.php?topic=1877806>

### Question 1096

Seasonal affective disorder is due to hypersecretion of which following hormones by the endocrine gland marked in the diagram?

- testosterone
- glucagon
- melatonin
- aldosterone
- vasopressin

Answer: <https://biology-forums.com/index.php?topic=1904103>

### Question 1097

In the diagram, where is the central (Haversian) canal?

- C
- A

- E
- F
- D

Answer: <https://biology-forums.com/index.php?topic=1902953>

### Question 1098

Which of the labeled structures in the diagram represents a type II cutaneous mechanoreceptor that monitors the stretching of skin?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903935>

### Question 1099

Which of the labeled structures in the diagram of the trigeminothalamic pathway is the trigeminal ganglion?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903997>

### Question 1100

Which of the following muscles of the thorax is known as the boxers muscle because of its role in moving the arm to make a punching motion?

- a) levator scapulae
- b) trapezius
- c) serratus anterior
- d) pectoralis minor
- e) rhomboid major

Answer: <https://biology-forums.com/index.php?topic=1900768>

### Question 1101

Carpal tunnel syndrome involves compression of what nerve as it passes through the narrow passageway formed anteriorly by the flexor retinaculum and posteriorly by the carpal bones?

- a) ulnar nerve
- b) radial nerve
- c) median nerve
- d) deep radial nerve
- e) axillary nerve

Answer: <https://biology-forums.com/index.php?topic=1900779>

### Question 1102

Males generally have lower rates of developing osteoporosis because, on average, they enter adulthood with a heavier bone mass than women and they don't experience the same dramatic decline in sex hormones as women do with aging.

[b] True or False? [b]

Answer: <https://biology-forums.com/index.php?topic=1900582>

### Question 1103

The \_\_\_\_\_ and \_\_\_\_\_ cartilages of the larynx aid in production of sound.

- a) thyroid and epiglottic
- b) cricoid and arytenoid
- c) arytenoid and corniculate
- d) cricoid and cuneiform
- e) corniculate and epiglottic

Answer: <https://biology-forums.com/index.php?topic=1901100>

### Question 1104

Visceral pain coming from the heart is referred to which location(s) in the diagram?

- C
- G
- B
- H
- A

Answer: <https://biology-forums.com/index.php?topic=1904052>

### Question 1105

Spinal nerve C8 exits between which two vertebrae:

- a) C7 and C9
- b) C7 and T1
- c) C7 and L1
- d) C7 and S1

Answer: <https://biology-forums.com/index.php?topic=1900872>

### Question 1106

In order from the small intestine to the anus, the major regions of the large intestine are

- a) ascending colon, sigmoid colon, transverse colon, descending colon, cecum, rectum, anal canal
- b) cecum, ascending colon, transverse colon, descending colon, sigmoid colon, rectum, anal canal
- c) ascending colon, transverse colon, sigmoid colon, descending colon, cecum, anal canal, rectum
- d) cecum, ascending colon, transverse colon, descending colon, sigmoid colon, anal canal, rectum
- e) ascending colon, transverse colon, sigmoid colon, descending colon, anal canal, cecum, rectum

Answer: <https://biology-forums.com/index.php?topic=1901157>

### Question 1107

Aging has all of these effects on the heart except:

- 1. increase in maximum heart rate
- 2. loss of contractile strength
- 3. increase in systolic blood pressure
- 4. increase in compliance

- a) 1 only
- b) 2 only
- c) 3 only
- d) 4 only
- e) 1 and 4 are correct

Answer: <https://biology-forums.com/index.php?topic=1901071>

### Question 1108

Where is the external oblique?

- D
- G
- H
- I
- E

Answer: <https://biology-forums.com/index.php?topic=1903407>

### Question 1109

In the diagram, where is the fulcrum?

- A
- B
- C
- All of these choices
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1903398>

### Question 1110

What type of joint is shown in the diagram?

- Suture
- Synostosis
- Symphysis
- Synovial
- Gomophosis

Answer: <https://biology-forums.com/index.php?topic=1903207>

### Question 1111

Which of the following would be found in the papillary layer but not the reticular layer of the dermis?

- a) capillary loops
- b) adipose cells
- c) lamellated corpuscles (pacinian corpuscles)
- d) the root of hair follicles
- e) sweat glands

Answer: <https://biology-forums.com/index.php?topic=1900507>

### Question 1112

Most of the bones of the skull are formed by this process.

- a) interstitial growth
- b) growth at the epiphyseal plate
- c) intramembranous ossification
- d) endochondral ossification
- e) appositional growth

Answer: <https://biology-forums.com/index.php?topic=1900552>

### Question 1113

Which neurotransmitter is released at the autonomic ganglion by the preganglionic neuron in the diagram?

- Norepinephrine
- Acetylcholine
- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1903972>

### Question 1114

Which distal feature(s) of the humerus articulate with the proximal head of the radius?

- 1 capitulum
- 2 radial fossa
- 3 trochlea
- a) 1 only
- b) 2 only
- c) 3 only
- d) 1 and 2 only
- e) 2 and 3 only

Answer: <https://biology-forums.com/index.php?topic=1900621>

### Question 1115

Which statement describes the complement system correctly?

- a) a capital letter followed by a lower case letter signifies the inactive form
- b) the lectin pathway does not cause the activation of C3
- c) C3b is responsible for opsonization
- d) has a role in decreasing inflammation by causing release of histamine
- e) is a defensive system primarily made up of many different lipids

Answer: <https://biology-forums.com/index.php?topic=1901091>

### Question 1116

Tight junctions allow ions, nutrients, and waste products to freely move between cells.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900487>

### Question 1117

Pepsinogen is an active protease in the stomach.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901144>

### Question 1118

Where is the clavicular notch?

- A
- C
- D
- B
- F

Answer: <https://biology-forums.com/index.php?topic=1903175>

### Question 1119

Where is the pulmonary plexus in the diagram?

- A
- E
- D
- B
- G

Answer: <https://biology-forums.com/index.php?topic=1903922>

### Question 1120

Which statement about the vertebral column is correct?

- a) an adult has fewer vertebrae (26) than a child (33)
- b) thoracic and sacral curves are primary curves (present at birth)
- c) lumbar and cervical curves are secondary curves (develop after birth)
- d) the sacrum and coccyx are made of individual vertebrae that later fuse
- e) all of these are correct statements about the vertebral column

Answer: <https://biology-forums.com/index.php?topic=1900599>

### Question 1121

Which of the following negatively affects the immune system?

- a) smoking
- b) lack of sleep
- c) sedentary lifestyle
- d) stress
- e) all of these choices

Answer: <https://biology-forums.com/index.php?topic=1901094>

### Question 1122

Which of the following are responsible for producing new olfactory receptors?

- a) olfactory glands
- b) basal cells
- c) supporting cells
- d) olfactory bulbs

Answer: <https://biology-forums.com/index.php?topic=1900936>

### Question 1123

What endocrine abnormality does the individual on the left in the picture of identical twins have?



From New England Journal of Massachusettes Medical Society, February 18, 1999, vol.340, No. 7, Page 524.

- Goiter
- Graves' Disease
- Type 2 diabetes
- Cushing's syndrome
- Gigantism

Answer: <https://biology-forums.com/index.php?topic=1904098>

### Question 1124

Visceral pain coming from the stomach is referred to which location(s) in the diagram?

- B
- G
- H
- F
- E

Answer: <https://biology-forums.com/index.php?topic=1904049>

### Question 1125

The teniae coli are

- a) pouches in the large intestine.
- b) located at the bottom of the intestinal glands.
- c) structures which increase the surface area of the large intestine.
- d) small pouches of visceral peritoneum filled with fat.
- e) thickened portions of the longitudinal muscles of the muscularis.

Answer: <https://biology-forums.com/index.php?topic=1901158>

### Question 1126

In which region of a long bone, such as the humerus, would you find the epiphyseal plate (growth plate)?

- a) epiphysis
- b) diaphysis
- c) metaphysis
- d) periosteum
- e) endosteum

Answer: <https://biology-forums.com/index.php?topic=1900543>

### Question 1127

Collateral circulation is due to anastomoses.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901055>

### Question 1128

The articular facets of the patella articulate with the medial and lateral condyles of the femur.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900652>

### Question 1129

Which statement is not true about the external features of the heart?

- a) the coronary sulcus is the boundary between the atria and ventricles
- b) the anterior interventricular sulcus separates the anterior border of the ventricles
- c) the auricles allow increased blood capacity in the ventricles
- d) the coronary sulci contain blood vessels and fat
- e) the ventricles are located inferior to the atria

Answer: <https://biology-forums.com/index.php?topic=1900998>

### Question 1130

The only type of lever in the body that might not provide mechanical advantage is a first class lever (and these are rare).

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900795>

### Question 1131

A high count of which of the white blood cells shown in the figure may indicate parasitic infection or autoimmune disease?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904117>

### Question 1132

Which bony landmark can be felt and seen, and is commonly used to help determine where to give an intramuscular injection on the lateral surface of the thigh?

- a) the iliac crest
- b) the lateral epicondyle
- c) the greater trochanter
- d) the lesser trochanter
- e) the intertrochanteric line

Answer: <https://biology-forums.com/index.php?topic=1900633>

### Question 1133

Which of the following shows ligand binding at the cell surface?

- B
- C
- D
- A
- E

Answer: <https://biology-forums.com/index.php?topic=1902869>

### Question 1134

Which labeled neuron is considered to be a second-order neuron?

- A
- B
- C
- More than one answer selection is correct.
- None of the answer selections are correct.

Answer: <https://biology-forums.com/index.php?topic=1903940>

### Question 1135

The lack of reactivity to the body's own proteins is known as:

- a) positive selection
- b) self-recognition
- c) deletion
- d) self-tolerance
- e) anergy

Answer: <https://biology-forums.com/index.php?topic=1901093>

### Question 1136

Which of the following perineal muscles is involved with erection of the penis in males, and of the clitoris in females?

- a) levator ani
- b) bulbospongiosus
- c) superficial transverse perineal
- d) deep transverse perineal
- e) sphincter urethrovaginalis

Answer: <https://biology-forums.com/index.php?topic=1900767>

### Question 1137

In the diagram, where are thick filaments found?

- C
- E
- A
- B
- All of these choices

Answer: <https://biology-forums.com/index.php?topic=1903389>

### Question 1138

Which of the labeled papilla houses 100–300 taste buds each?

- A
- B
- C
- D
- Both A and D

Answer: <https://biology-forums.com/index.php?topic=1904055>

### Question 1139

Which bones form the acetabulum?

- 1 ilium
  - 2 ischium
  - 3 pubis
- a) 1
  - b) 1, 2, 3
  - c) 2
  - d) 2, 3
  - e) 3

Answer: <https://biology-forums.com/index.php?topic=1900627>

### Question 1140

In the diagram, which organelle aids movement of the cell?

- A
- G
- H
- D
- I

Answer: <https://biology-forums.com/index.php?topic=1902860>

### Question 1141

Regulation of blood glucose in the body is an example of homeostasis.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900374>

### Question 1142

Which structure in the figure is made of dense irregular connective tissue that forms septa dividing the testes into lobules?

- B
- C
- F
- A
- D

Answer: <https://biology-forums.com/index.php?topic=1904290>

### Question 1143

Which statement is true regarding cranial nerves?

- a) they pass through intervertebral foramina
- b) there are 31 pairs
- c) they are part of the peripheral nervous system

d) they all contain sensory and motor axons  
e) they originate from the brainstem, cerebellum and cerebrum  
Answer: <https://biology-forums.com/index.php?topic=1900899>

### Question 1144

Winged scapula is the result of a nerve that affects the interosseous muscles.  
[b]True or False?[/b]  
Answer: <https://biology-forums.com/index.php?topic=1900878>

### Question 1145

Parasympathetic innervation of the liver occurs through

- oculomotor (III) nerve (cranial nerve III).
- facial (VII) nerve (cranial nerve VII).
- glossopharyngeal (IX) nerve (cranial nerve IX).
- vagus (X) nerve (cranial nerve X).
- pelvic splanchnic nerve.

Answer: <https://biology-forums.com/index.php?topic=1904005>

### Question 1146

Which labeled neuron conducts impulses from the thalamus to the primary somatosensory area of the cerebral cortex?

- A
- B
- C
- More than one answer selection is correct.
- None of the answer selections are correct.

Answer: <https://biology-forums.com/index.php?topic=1904034>

### Question 1147

Stenosis of the vertebral column occurs when bony growths (osteophytes) cause a narrowing of the vertebral canal, resulting in pressure and pain on spinal nerves, and a possible decrease in function of the muscles and lower limbs.  
[b]True or False?[/b]  
Answer: <https://biology-forums.com/index.php?topic=1900608>

### Question 1148

The majority of body hair of \_\_\_\_\_ is vellus rather than terminal hair.  
a) adult males  
b) adult females  
Answer: <https://biology-forums.com/index.php?topic=1900517>

### Question 1149

Which cavity contains the liver?

- (A)
- (B)
- (C)
- (D)
- (E)

Answer: <https://biology-forums.com/index.php?topic=1902847>

### Question 1150

Where is the soleus?

- A
- C
- E
- I
- H

Answer: <https://biology-forums.com/index.php?topic=1903406>

### Question 1151

Identify the choroid.

- F
- E
- D
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1904059>

### Question 1152

Which of the following would not be a common occurrence at joints due to aging?

- a) ligaments become stretched and lengthen
- b) the amount of synovial fluid produced decreases
- c) osteoarthritis due to wear and tear on joints can occur
- d) articular cartilages become thinner
- e) exercise can help an older person maintain their range of motion

Answer: <https://biology-forums.com/index.php?topic=1900687>

### Question 1153

Most cholesterol medications are designed to:

- a) Inhibit excretion of bile in the feces
- b) Promote the absorption of cholesterol
- c) Decrease the filtration of cholesterol
- d) Inhibit glucose absorption
- e) None of these choices

Answer: <https://biology-forums.com/index.php?topic=1877812>

### Question 1154

The substance that stimulates formation of platelets is:

- a) thrombopoietin
- b) immunoglobulins
- c) antibodies
- d) erythropoietin
- e) cytokines

Answer: <https://biology-forums.com/index.php?topic=1900984>

### Question 1155

What is this figure demonstrating?

- Erythropoiesis
- RBC differentiation
- Emigration
- Clot formation
- Clot retraction

Answer: <https://biology-forums.com/index.php?topic=1904112>

### Question 1156

In which region of the diagram would you find the medullary cavity?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902945>

### Question 1157

Where is the mentalis?

- J
- K
- L
- M
- N

Answer: <https://biology-forums.com/index.php?topic=1903412>

### Question 1158

Which of the following cells secrete mucus?

- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904247>

### Question 1159

Which of the following hormones is produced in zone of adrenal gland labeled B?

Mark Nielsen

- cortisol
- epinephrine
- norepinephrine
- glucagon
- androgens

Answer: <https://biology-forums.com/index.php?topic=1904088>

### Question 1160

Which of the following muscles is (are) not a component of the pelvic diaphragm?

- a) levator ani
- b) pubococcygeus
- c) iliococcygeus
- d) bulbospongiosus
- e) ischiococcygeus

Answer: <https://biology-forums.com/index.php?topic=1900763>

### Question 1161

Nonessential amino acids may be converted into essential amino acids through transamination.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901175>

### Question 1162

Which paired facial bone articulates with every other facial bone, except the mandible?

- a) zygomatic bones
- b) maxillae
- c) palatine bones
- d) nasal bones
- e) sphenoid

Answer: <https://biology-forums.com/index.php?topic=1900590>

### Question 1163

Which labeled cell in the diagram is a pluripotent stem cell?

- A
- B
- C
- D
- G

Answer: <https://biology-forums.com/index.php?topic=1904109>

### Question 1164

Incomplete dominance might account for an individual who is found to produce only half the expected amount of a particular gene product.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901268>

### Question 1165

Resting cardiac output (CO) in a well-conditioned athlete is about the same as in a healthy untrained person.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901049>

### Question 1166

The extrinsic pathway of blood clotting occurs much quicker than the intrinsic pathway.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900995>

### Question 1167

The bones of the skull develop from mesenchymal cells of the mesoderm.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900657>

### Question 1168

Where is the anterior (ventral) root of a spinal nerve?

Dissection: Shawn Miller

Photograph: Mark Nielsen

- A
- B
- C
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1903750>

### Question 1169

Which layer consists on average of 25 to 30 layers of flattened dead keratinocytes.

- a) stratum basale
- b) stratum spinosum
- c) stratum granulosum
- d) stratum lucidum
- e) stratum corneum

Answer: <https://biology-forums.com/index.php?topic=1900500>

### Question 1170

$O = O$  is the structural formula for the oxygen molecule. How many electrons in total are being shared between the two oxygen atoms?

- a) 1
- b) 2
- c) 3
- d) 4
- e) 6

Answer: <https://biology-forums.com/index.php?topic=1900386>

### Question 1171

What type of bone cell starts forming the bone matrix?

- A
- B
- C
- D

Answer: <https://biology-forums.com/index.php?topic=1902949>

### Question 1172

Which of the following is not true of the prostaglandins?

- a) decrease pain sensitivity
- b) promote fever
- c) derived from arachidonic acid
- d) alter smooth muscle contraction
- e) promote fever and alter smooth muscle contraction

Answer: <https://biology-forums.com/index.php?topic=1900972>

### Question 1173

Which structure consists of a primary oocyte that is surrounded by several layers of cuboidal cells called *granulosa*?

- A
- B
- C
- F
- H

Answer: <https://biology-forums.com/index.php?topic=1904280>

### Question 1174

The pulmonary circulatory route carries blood from the

- a) right atrium to the right ventricle .
- b) right ventricle to the left atrium.
- c) left atrium to the left ventricle.
- d) left ventricle to the right atrium.
- e) left ventricle to the coronary sinus.

Answer: <https://biology-forums.com/index.php?topic=1877809>

### Question 1175

Which structure transduces mechanical vibrations into electrical signals?

- a) hair cells
- b) supporting cells
- c) tympanic membrane
- d) oval window
- e) auricle

Answer: <https://biology-forums.com/index.php?topic=1900946>

### Question 1176

Which of the following would not be a change to the skin that occurs with aging?

- a) rosacea
- b) formation of lanugo
- c) changes in collagen and elastin fibers in the dermis
- d) diminished numbers of Intraepidermal macrophages
- e) decrease in functioning melanocytes

Answer: <https://biology-forums.com/index.php?topic=1900525>

### Question 1177

Evaluation of which brain waves might indicate a brain injury in an awake adult?

- a) alpha waves
- b) beta waves
- c) theta waves
- d) delta waves
- e) alpha and beta waves

Answer: <https://biology-forums.com/index.php?topic=1900898>

### Question 1178

Prolactin stimulates contraction of myoepithelial cells in the breast to cause milk ejection.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901264>



### Question 1179

During erection and ejaculation, the corpus spongiosum penis

- is comprised of two dorsolateral masses.
- helps keep the spongy urethra open.
- contracts to prevent semen from entering the bladder.
- undergoes peristaltic contractions.
- helps supply lubricating fluid.

Answer: <https://biology-forums.com/index.php?topic=1901217>

### Question 1180

As we age, the decrease of which hormone is associated with the loss of muscle tissue?

- cortisol
- aldosterone
- human growth hormone
- estrogen
- thyroxine

Answer: <https://biology-forums.com/index.php?topic=1900977>

### Question 1181

To delay the onset of muscle fatigue, not all the motor units in a muscle will contract at the same time. Some will remain relaxed while others are contracting. If the contraction continues, and greater force is needed, more motor units will be recruited.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900721>

### Question 1182

This type of tissue can function as fat storage, pad out and bind an organ together, wrap skeletal muscles, or transport substances.

- epithelial tissue
- connective tissue
- muscular tissue
- nervous tissue

Answer: <https://biology-forums.com/index.php?topic=1900455>

### Question 1183

What is the most common class of levers found in the body?

- first class lever
- second class lever
- third class lever

Answer: <https://biology-forums.com/index.php?topic=1900734>

### Question 1184

In the figure shown, which light micrograph shows fibrocartilage?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1902886>

### Question 1185

Sperm are transported within the testes in the

- rete testis.
- epididymis.
- ductus deferens.
- rete testis and epididymis are both correct.
- rete testis, epididymis, and ductus deferens are all correct.

Answer: <https://biology-forums.com/index.php?topic=1901198>

### Question 1186

Which labeled step(s) represents regeneration of active photopigment?

- 1
- 2
- 3
- 4
- Both 1 and 3

Answer: <https://biology-forums.com/index.php?topic=1904068>

### Question 1187

Which structure in the figure is the hyoid bone?

- A
- B
- D
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1904234>

### Question 1188

Where is the inferior mesenteric ganglion and plexus in the figure?

- E
- F
- G
- M
- N

Answer: <https://biology-forums.com/index.php?topic=1903968>

### Question 1189

Which of the labeled cells in the diagram is a neuroglial cell that forms and maintains the myelin sheath around CNS axons?

- A
- B
- C
- D
- F

Answer: <https://biology-forums.com/index.php?topic=1903462>

### Question 1190

Which disorder is characterized by a persons breathing repeatedly stopping for 10 or more seconds while sleeping?

- a) narcolepsy
- b) insomnia
- c) sleep apnea
- d) coma
- e) amnesia

Answer: <https://biology-forums.com/index.php?topic=1877796>

### Question 1191

Most of the bodys feedback systems, which regulate homeostasis, are positive feedback systems.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900375>

### Question 1192

Where is the hypogastric plexus in the figure?

- J
- K
- D

- F
- N

Answer: <https://biology-forums.com/index.php?topic=1904010>

### Question 1193

While the bones of this joint may fracture, they rarely become dislocated. The articular capsule and accessory ligaments of this joint make it one of the strongest structures in the body.

- a) temporomandibular joint
- b) elbow joint
- c) shoulder joint
- d) hip joint
- e) knee joint

Answer: <https://biology-forums.com/index.php?topic=1900682>

### Question 1194

The corpuscle of touch (Meissner corpuscle) would be found in which region of the skin shown in the figure?

- B
- D
- E
- J
- None of these answer choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1902923>

### Question 1195

Which letter in the diagram indicates the correct position of a myeloid stem cell?

- A
- B
- C
- D
- G

Answer: <https://biology-forums.com/index.php?topic=1904110>

### Question 1196

Where is the celiac ganglion and plexus in the diagram?

- A
- B
- D
- C
- G

Answer: <https://biology-forums.com/index.php?topic=1903979>

### Question 1197

Which of the following substance: description pairs are NOT correctly matched?

- a) glucose 6-phosphate: may be dephosphorylated to produce glucose
- b) glucose 6-phosphate: may be used in synthesis of nucleic acids
- c) pyruvic acid: may be converted into alanine through transamination
- d) pyruvic acid: may be used in synthesis of some lipids.
- e) acetyl coenzyme A: may be oxidized in the Krebs cycle.

Answer: <https://biology-forums.com/index.php?topic=1901176>

### Question 1198

Which of the following hormones, in both adult males and females, ultimately ends growth of long bones at the epiphyseal plate? (This happens sooner in women than in men, and so men on average are taller than women).

- a) calcitriol
- b) parathyroid hormone
- c) thyroid hormone
- d) estrogen

e) IGFs

Answer: <https://biology-forums.com/index.php?topic=1900561>

### Question 1199

Of the major types of organic compounds found in the body, which type is used to make enzymes, to make structural molecules such as collagen, and nearly always has complex, 3-dimensional structures?

- a) Carbohydrates
- b) Lipids
- c) Cholesterol
- d) Proteins
- e) Nucleic acids

Answer: <https://biology-forums.com/index.php?topic=1900401>

### Question 1200

If the pathway shown in the diagram is a parasympathetic division pathway, which neurotransmitter acts at the effector?

- Norepinephrine
- Acetylcholine
- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1903974>

### Question 1201

Which labeled structure in the diagrams of the pelvis terminates anteriorly as the anterior superior iliac spine?

- A
- B
- C
- D
- H

Answer: <https://biology-forums.com/index.php?topic=1903195>

### Question 1202

Which line represents the opening from the uterus to the vagina?

- E
- F
- G
- H
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904279>

### Question 1203

Which type of joint permits this type of movement?

1. Synovial joint
2. Cartilaginous joint
3. Fibrous joint

- 1 only
- 2 only
- 3 only
- Both 1 & 2
- Both 2 & 3

Answer: <https://biology-forums.com/index.php?topic=1903215>

### Question 1204

Which part of the diagram contains the olfactory bulb neurons?

- A

- B
- E
- F
- H

Answer: <https://biology-forums.com/index.php?topic=1904074>

### Question 1205

The cell bodies of the sensory neurons that carry information from the periphery to the spinal cord are located in the

- anterior white commissure.
- central canal.
- lateral gray horn.
- posterior root ganglion.
- posterior gray horn.

Answer: <https://biology-forums.com/index.php?topic=1877787>

### Question 1206

Describe the vessel wall characteristics of the five main types of blood vessels that blood travels through from the time it leaves the left ventricle until it returns to the right atrium.

Answer: <https://biology-forums.com/index.php?topic=1877808>

### Question 1207

Which labeled structure in the diagram secretes a hormone that stimulates events that lower blood glucose concentration?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904087>

### Question 1208

The 46 chromosomes of the human genome contain approximately 500,000 genes.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900448>

### Question 1209

Which cranial nerve in the diagram has an autonomic motor function primarily involved in stimulating secretion of saliva?

- F
- I
- J
- K
- L

Answer: <https://biology-forums.com/index.php?topic=1903778>

### Question 1210

The medial and lateral condyles are distal features of which bone of the lower limb?

- patella
- femur
- tibia
- fibula
- tarsals

Answer: <https://biology-forums.com/index.php?topic=1900635>

### Question 1211

Which of the following is the correct pathway of blood starting at the right atrium?

- right atrium, left atrium, left ventricle, right ventricle, pulmonary trunk, pulmonary veins, aorta
- right atrium, aorta, left ventricle, left atrium, pulmonary trunk, right ventricle, pulmonary veins
- right atrium, right ventricle, pulmonary trunk, pulmonary veins, left atrium, left ventricle, aorta
- right atrium, pulmonary trunk, left atrium, left ventricle, pulmonary veins, aorta, right ventricle

Answer: <https://biology-forums.com/index.php?topic=1901004>

### Question 1212

Which is not true of the cytokines:

- a) are small proteins
- b) have been used to fight cancer
- c) can influence cell growth
- d) are secreted by erythrocytes
- e) include the interleukins and interferons

Answer: <https://biology-forums.com/index.php?topic=1901085>

### Question 1213

Which of the labeled steps in the diagram represent formation of the primitive heart tube?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904134>

### Question 1214

This skin layer is only present in places subjected to high levels of mechanical wear-and-tear, and provide an additional protective layer where it occurs, such as in the soles of the feet, palms, and fingertips.

- a) stratum corneum
- b) stratum lucidum
- c) stratum granulosum
- d) stratum spinosum
- e) stratum basale

Answer: <https://biology-forums.com/index.php?topic=1900504>

### Question 1215

Which statement is false in reference to the cranial meninges?

- a) have the same basic structure as the spinal meninges
- b) have three layers of the dura mater
- c) are continuous with the spinal meninges
- d) are named the dura mater, arachnoid mater, and the pia mater

Answer: <https://biology-forums.com/index.php?topic=1900881>

### Question 1216

During the translation phase of protein synthesis, where would you find an anticodon?

- a) on the DNA strand
- b) on the mRNA strand
- c) on the large subunit of the ribosome
- d) on the small subunit of the ribosome
- e) on the strand of tRNA

Answer: <https://biology-forums.com/index.php?topic=1900432>

### Question 1217

Where is the abductor digiti minimi?

- B
- C
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1903437>

### Question 1218

The primary visual area is located in which lobe of the brain?

- a) frontal

- b) occipital
- c) parietal
- d) flocculonodular
- e) posterior

Answer: <https://biology-forums.com/index.php?topic=1900896>

### Question 1219

Where is the right vagus nerve in the figure?

- A
- B
- C
- H
- K

Answer: <https://biology-forums.com/index.php?topic=1903965>

### Question 1220

What is the name of the outer layer of the serous membrane that surrounds the heart?

- a) diaphragm
- b) visceral pleura
- c) parietal pericardium
- d) visceral pericardium
- e) mediastinum

Answer: <https://biology-forums.com/index.php?topic=1877762>

### Question 1221

In the activities of secondary ossification centers, the medullary cavity forms later and is much smaller.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900577>

### Question 1222

In the diagram of the femur, where is the medial condyle?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903197>

### Question 1223

Where is the subarachnoid space?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903465>

### Question 1224

All amino acids would have the following two functional groups: a carboxyl group (COOH) and a carbonyl group (C = O).

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900407>

### Question 1225

If the pathway shown in the diagram is a parasympathetic division pathway, which neurotransmitter acts at the effector?

- Norepinephrine
- Acetylcholine

- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1904015>

### Question 1226

What is phantom limb sensation and describe why the patient experiences these sensations?

Answer: <https://biology-forums.com/index.php?topic=1877797>

### Question 1227

A child has learned how to draw circles in the air by moving the distal end of the index (pointing) finger while holding the rest of his hand still. What type of movement is this?

- abduction
- adduction
- circumduction
- rotation
- protraction

Answer: <https://biology-forums.com/index.php?topic=1900669>

### Question 1228

Which cranial nerve in the diagram innervates the lateral rectus muscle?

- B
- C
- D
- E
- F

Answer: <https://biology-forums.com/index.php?topic=1903774>

### Question 1229

Which of the following is the transparent layer on the anterior of the eyeball through which the iris can be observed?

- Retina
- Choroid
- Sclera
- Ciliary body
- Cornea

Answer: <https://biology-forums.com/index.php?topic=1877799>

### Question 1230

Proteins and fats may serve as substrates for glucose formation during glycogenesis.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901169>

### Question 1231

The lumbar enlargement extends from L1 to L4 and contains nerves that travel to and from the lower limbs.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900871>

### Question 1232

Varicose veins may occur during pregnancy because of the

- hormonal changes experienced during pregnancy.
- decreased venous return due to compression of the inferior vena cava.
- increased blood volume required by the mother.
- increased cardiac output by the mother.
- inability to exercise normally during pregnancy.

Answer: <https://biology-forums.com/index.php?topic=1901258>

### Question 1233

Which type of epithelium makes up the epidermis?

- stratified cuboidal



- b) stratified columnar
- c) keratinized stratified cuboidal
- d) keratinized stratified squamous
- e) keratinized stratified columnar

Answer: <https://biology-forums.com/index.php?topic=1900498>

### Question 1234

Mast cells are found near blood vessels in connective tissue and release histamine to promote inflammation as a response to injury or infection.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900489>

### Question 1235

Which statement about blood is not true?

- a) blood plasma is an extracellular matrix
- b) about 10% of the formed elements are red blood cells
- c) blood plasma is over 90% water
- d) most of the proteins found in blood are made in the liver
- e) 55% of the blood is made up of blood plasma

Answer: <https://biology-forums.com/index.php?topic=1900981>

### Question 1236

An electrocardiogram can help determine all of the following except:

- a) a cause of chest pain
- b) if a heart attack has occurred
- c) if the heart has enlarged
- d) if the conduction pathway is functioning normally
- e) all of these choices can be determined during an ECG

Answer: <https://biology-forums.com/index.php?topic=1901009>

### Question 1237

Where is the arachnoid mater?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903467>

### Question 1238

Identify the internal auditory canal.

- C
- D
- E
- F
- H

Answer: <https://biology-forums.com/index.php?topic=1904070>

### Question 1239

Absorbed nutrients reach the liver via the hepatic portal system.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901155>

### Question 1240

Which panel in the figure shows an example of the movement termed retraction?

- A
- B
- C

- D
- I

Answer: <https://biology-forums.com/index.php?topic=1903224>

### Question 1241

When an epidermal wound begins the healing process, basal cells migrate away from the basement membrane, enlarge, and migrate to fill in the wounded area) As these cells migrate from different sides of the wound, and reach each other, they stop migrating. This process is called \_\_\_\_\_.

- a) the inflammatory phase
- b) contact inhibition
- c) migratory phase
- d) an abrasion
- e) scar formation

Answer: <https://biology-forums.com/index.php?topic=1900522>

### Question 1242

Which panel in the figure shows an example of the movement termed supination?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903225>

### Question 1243

Once osteoblasts have surrounded themselves with the extracellular matrix of bone tissue, they remain inside little chambers called \_\_\_\_\_ where they carry on the metabolic functions that maintain bone tissue. At this point, the cells are called osteocytes.

- a) endosteum
- b) trabeculae
- c) lacunae
- d) periosteum
- e) osteons

Answer: <https://biology-forums.com/index.php?topic=1900548>

### Question 1244

What stage happens 3–4 days after fertilization?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904303>

### Question 1245

The increased ketogenesis seen during starvation decreases glucose usage and gluconeogenesis, thus indirectly decreasing catabolism of muscle protein for energy needs.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901178>

### Question 1246

Where would you be able to find dense regular connective tissue in the body?

- a) in the dermis of the skin
- b) as padding around the heart or kidneys
- c) in the spleen and lymph nodes
- d) in tendons and ligaments
- e) cartilage

Answer: <https://biology-forums.com/index.php?topic=1900473>

### Question 1247

Which of the labeled structures in the diagram is a pain receptor?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904028>

### Question 1248

Blood has a fluid extracellular matrix with cellular elements in it.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900492>

### Question 1249

The skin perceives a variety of sensations from several types of sensory receptors. Which receptor would let a person know if there was a small insect walking across a hair on their arm?

- free nerve endings
- Tactile epithelial cells (Merkel cells) and type I cutaneous mechanoreceptor (Merkel discs)
- Corpuscle of touch
- root hair plexus
- lamellated corpuscle

Answer: <https://biology-forums.com/index.php?topic=1900521>

### Question 1250

Which structure has an opening called the apical foramen?

- A
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1904242>

### Question 1251

The contractile organelle of skeletal muscle fibers is

- the endoplasmic reticulum
- the myofilament
- the T tubule
- the myofibril
- the sarcomere

Answer: <https://biology-forums.com/index.php?topic=1900708>

### Question 1252

Which neurotransmitter is released at the autonomic ganglion by the preganglionic neuron in the diagram?

- Norepinephrine
- Acetylcholine
- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1903917>

### Question 1253

Which of the following does not consist primarily of slowly adapting sensory receptors?

- body position
- touch
- pressure
- smell

Answer: <https://biology-forums.com/index.php?topic=1900920>

### Question 1254

In somatic cell division, a cell undergoes a nuclear division called \_\_\_\_\_, and a division of its cytoplasm called \_\_\_\_\_.

- a) the cell cycle / cytokinesis
- b) meiosis / mitosis
- c) mitosis / cytokinesis
- d) prophase / cytokinesis
- e) mitosis / telophase

Answer: <https://biology-forums.com/index.php?topic=1900433>

### Question 1255

All of the following are developmental trends occurring during the fetal period EXCEPT:

- a) head becomes more proportionate to the rest of the body.
- b) upper limbs approach final relative length.
- c) blood formation occurs in the red bone marrow, thymus and spleen.
- d) heart becomes four-chambered.
- e) fetal movements become detectable by the mother.

Answer: <https://biology-forums.com/index.php?topic=1901253>

### Question 1256

The diaphragm, a muscle involved with breathing, is innervated by the phrenic nerve, a major nerve of the thoracic spinal nerves.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900842>

### Question 1257

Most of the phosphate in a body is present as

- a) Lipids
- b) Plasma membranes
- c) DNA
- d) Calcium phosphate salt
- e) Carbohydrates

Answer: <https://biology-forums.com/index.php?topic=1877826>

### Question 1258

Formation of granulation tissue and a scab would only happen in deep wound healing where the dermis has been damaged.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900539>

### Question 1259

The longest and largest bone of the upper limb is the \_\_\_\_\_ .

- a) radius
- b) ulna
- c) humerus
- d) tibia
- e) fibula

Answer: <https://biology-forums.com/index.php?topic=1900619>

### Question 1260

Which of the following molecules is a polymer of a smaller carbohydrate unit?

- a) lactose
- b) glucose
- c) glycogen
- d) sucrose
- e) triacylglycerol

Answer: <https://biology-forums.com/index.php?topic=1900399>

### Question 1261

Where is the left vagus (X) nerve in the diagram?

- A
- C
- D
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1904017>

### Question 1262

Where is the epidural space?

Dissection: Shawn Miller  
Photograph: Mark Nielsen

- A
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1903749>

### Question 1263

Which labeled structure in the figure is a capillary?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904150>

### Question 1264

Hair follicles go through a characteristic growth cycle: the growth stage, regression stage, and resting stage. At any given time, about 85% of a persons hair is in the resting stage of the growth cycle.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900534>

### Question 1265

Which of the following labeled panels in the figure shows hyperextension?

- C
- E
- F
- G
- I

Answer: <https://biology-forums.com/index.php?topic=1903217>

### Question 1266

Some structures in both the upper and lower respiratory tracts serve as sites for gas diffusion.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901097>

### Question 1267

The three components of the nasal septum are the middle nasal conchae, the vomer, and the perpendicular plat of the ethmoid bone.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900603>

### Question 1268

Which of the following bones articulate at the glenohumeral joint?

- humerus and ulna
- scapula and humerus
- manubrium and clavicle

- d) femur and coxal bone
- e) tibia and femur

Answer: <https://biology-forums.com/index.php?topic=1900617>

### Question 1269

Where is the esophageal plexus in the diagram?

- A
- B
- D
- C
- G

Answer: <https://biology-forums.com/index.php?topic=1903923>

### Question 1270

The cells of the nervous system which are able to generate nerve impulses (action potentials) are called neuroglia.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900494>

### Question 1271

Which cranial nerve in the diagram has a somatic motor function primarily involved in chewing?

- E
- G
- H
- I
- J

Answer: <https://biology-forums.com/index.php?topic=1903772>

### Question 1272

Improper lifting of a heavy load (such as trying to lift a box of books from its position on the floor), is most likely to cause painful back spasms in which muscle(s)?

- a) splenius capitis
- b) splenius cervicis
- c) longissimus thoracis
- d) erector spinae
- e) scalene

Answer: <https://biology-forums.com/index.php?topic=1900783>

### Question 1273

In the diagram, which organelle is used to modify, sort and transport proteins?

- D
- I
- A
- J
- G

Answer: <https://biology-forums.com/index.php?topic=1902859>

### Question 1274

In the diagram, which labeled structure contains motor proteins that convert the energy in ATP into mechanical movements?

- C
- A
- E
- D
- None of these are correct.

Answer: <https://biology-forums.com/index.php?topic=1903386>

### Question 1275

Which structure is an eccrine sweat gland?

- A
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1902921>

### Question 1276

The superior mesenteric ganglion receives nervous input from the

- lesser splanchnic nerve.
- least splanchnic nerve.
- greater thoracic splanchnic nerve.
- a and b only
- a, b, and c

Answer: <https://biology-forums.com/index.php?topic=1903905>

### Question 1277

Which hormone is not matched correctly with its principal action?

- a) gastrin increases stomach movement
- b) erythropoietin (EPO) increases white blood cell production
- c) leptin suppresses appetite
- d) atrial natriuretic peptide (ANP) lowers blood pressure
- e) estrogens prepare mammary gland to secrete milk

Answer: <https://biology-forums.com/index.php?topic=1900971>

### Question 1278

Which of the common molecules normally found in the body plays a role in the aging process, forming irreversible cross-linkages between proteins, and contributing to the stiffness and loss of elasticity we may experience with aging?

- a) glucose
- b) phospholipids
- c) water
- d) NaCl
- e) ATP

Answer: <https://biology-forums.com/index.php?topic=1900436>

### Question 1279

Where is the cricoid cartilage?

- D
- E
- F
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1904187>

### Question 1280

Ball-and-socket joints are triaxial (multiaxial), because they allow motion around three axes (flexion -extension, abduction -adduction, and rotation).  
[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900697>

### Question 1281

Which structure in the figure secretes seminal plasmin, proteolytic enzymes like pepsinogen and lysozyme, and citric acid?

- C
- K
- B
- G
- L

Answer: <https://biology-forums.com/index.php?topic=1904285>

### Question 1282

Where on the diagram is the cervical area?

- C
- E
- J
- K
- B

Answer: <https://biology-forums.com/index.php?topic=1902838>

### Question 1283

The small intestine is located primarily within which region?

- a) Pubic region
- b) Umbilical region
- c) Epigastric region
- d) Mid- inguinal region
- e) Gastric region

Answer: <https://biology-forums.com/index.php?topic=1900370>

### Question 1284

A high count of which of the white blood cells shown in the figure may indicate fungal infection?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904119>

### Question 1285

Which neurotransmitter is released by the preganglionic neuron at the autonomic ganglion in the diagram?

- Norepinephrine
- Acetylcholine
- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1904016>

### Question 1286

Where is the right vagus nerve in the figure?

- A
- B
- C
- H
- K

Answer: <https://biology-forums.com/index.php?topic=1904006>

### Question 1287

Where is the iliacus?

- A
- B
- C
- H
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1903439>

### Question 1288



Which panel in the figure shows an example of the movement termed elevation?

- A
- B
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1903222>

### Question 1289

Which type of exocrine gland are sebaceous (oil) glands?

- a) merocrine
- b) apocrine
- c) holocrine
- d) enoplasmic glands
- e) vesicular glands

Answer: <https://biology-forums.com/index.php?topic=1900466>

### Question 1290

The destruction of alveoli seen in emphysema would cause a decrease in alveolar ventilation rate.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901115>

### Question 1291

Which diagram represents a reverberating circuit?

- A
- B
- C
- D

Answer: <https://biology-forums.com/index.php?topic=1903456>

### Question 1292

The genes in a chromosome code for proteins.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900447>

### Question 1293

In the diagram, where is the mastoid process?

- A
- B
- C
- D
- G

Answer: <https://biology-forums.com/index.php?topic=1903160>

### Question 1294

Milk takes the following course from the alveoli to the nipple:

- a) secondary tubules, mammary ducts, lactiferous sinuses, lactiferous ducts
- b) mammary ducts, secondary tubules, lactiferous sinuses, lactiferous ducts
- c) lactiferous sinuses, lactiferous ducts, mammary ducts, secondary tubules
- d) lactiferous ducts, mammary ducts, secondary tubules, lactiferous sinuses
- e) secondary tubules, lactiferous sinuses, lactiferous ducts, mammary ducts

Answer: <https://biology-forums.com/index.php?topic=1901229>

### Question 1295

When comparing cardiac muscle tissue to skeletal muscle tissue, which statement is true?

- a) both cardiac and skeletal muscle fibers are voluntary
- b) skeletal muscle fibers are connected by intercalated discs

- c) both types of fibers are striated
- d) skeletal muscle fibers are shorter
- e) there are more mitochondria in skeletal muscle fibers

Answer: <https://biology-forums.com/index.php?topic=1901006>

### Question 1296

Which of the capillaries shown in the figure has an incomplete or absent basement membrane?

- A
- B
- C
- A and B
- A, B, and C

Answer: <https://biology-forums.com/index.php?topic=1904152>

### Question 1297

A fibrous joint could also be called a fibrous articulation, or a fibrous arthrosis.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900688>

### Question 1298

In the diagram, which bone articulates with every other bone of the face except the mandible?

- F
- G
- H
- I
- J

Answer: <https://biology-forums.com/index.php?topic=1903153>

### Question 1299

What is line C pointing to?

- Terminal bronchiole
- Respiratory bronchiole
- Alveolar ducts
- Alveolar sac
- Alveoli

Answer: <https://biology-forums.com/index.php?topic=1904195>

### Question 1300

Which radiographs were obtained using low-dose x-rays?

- (A) and (B)
- (B) and (C)
- (C) and (D)
- (A) and (C)
- (B) and (E)

Answer: <https://biology-forums.com/index.php?topic=1902852>

### Question 1301

Which sensation is not carried by the posterior column-medial lemniscus (PCML) pathway?

- a) stereognosis
- b) vibration
- c) temperature
- d) fine touch
- e) kinesthesia

Answer: <https://biology-forums.com/index.php?topic=1900927>

### Question 1302

Which of the labeled layers in the diagram of the arterial wall is composed of a simple squamous epithelium, a basement membrane and a layer of elastic tissue?

- A
- B
- C
- A and B
- A, B, and C

Answer: <https://biology-forums.com/index.php?topic=1904148>

### Question 1303

Thoracolumbar is another name for which division of ANS?

- a) Parasympathetic
- b) Sympathetic
- c) Somatic nervous system
- d) Autonomic ganglia
- e) Craniosacral division

Answer: <https://biology-forums.com/index.php?topic=1877790>

### Question 1304

Which are the most numerous white blood cells?

- a) lymphocytes
- b) neutrophils
- c) monocytes
- d) eosinophils
- e) basophils

Answer: <https://biology-forums.com/index.php?topic=1900990>

### Question 1305

Which portion of this myogram shows a single twitch of the muscle?

- A
- B
- C
- D
- none of these choices

Answer: <https://biology-forums.com/index.php?topic=1903390>

### Question 1306

Which of the following is not a hole or other kind of opening through a bone?

- a) fossa
- b) foramen
- c) meatus
- d) fissure

Answer: <https://biology-forums.com/index.php?topic=1900585>

### Question 1307

Muscle fascicles can be arranged in one of several patterns. Which of the following patterns is not an example of the arrangement of fascicles in a muscle?

- a) pennate
- b) elliptical
- c) fusiform
- d) triangular
- e) circular

Answer: <https://biology-forums.com/index.php?topic=1900735>

### Question 1308

Where is the papillary duct?

- C

- F
- H
- N
- O

Answer: <https://biology-forums.com/index.php?topic=1904268>

### Question 1309

Where is the epiglottis?

- O
- R
- S
- F
- Q

Answer: <https://biology-forums.com/index.php?topic=1904181>

### Question 1310

What type of neurotransmitter is used by the pathway shown in the figure?

- Norepinephrine
- Acetylcholine
- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1903782>

### Question 1311

PTH, calcitriol and calcitonin are

- The main regulators of magnesium in the blood
- The main regulators of phosphate in the blood
- The main regulators of calcium in the blood
- The main regulators of NaCl in the blood
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1877825>

### Question 1312

Where is the vastus intermedius?

- D
- E
- F
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1903441>

### Question 1313

Weak acid and weak bases that can add or remove protons (H+) to fluids in the body, thereby helping to keep pH levels at homeostatic levels, are called \_\_\_\_\_.

- Buffers
- Hydrophobic compounds
- Covalent compounds
- Colloids
- Suspensions

Answer: <https://biology-forums.com/index.php?topic=1900395>

### Question 1314

In the diagram, which one represents carrier-mediated facilitated diffusion?

- A
- B
- C

- Both A and C
- Both B and C

Answer: <https://biology-forums.com/index.php?topic=1902862>

### Question 1315

In the diagram, which region includes B cells, plasma cells and macrophages?

- B
- C
- D
- E
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904159>

### Question 1316

In the diagram of the foot, where is the navicular?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903200>

### Question 1317

Which of the following conditions could potentially result from hyposecretion of a hormone released by the portion of the marked gland in the diagram?

- tetany
- acromegaly
- diabetes insipidus
- goiter
- Cushing's syndrome

Answer: <https://biology-forums.com/index.php?topic=1904090>

### Question 1318

In non-dividing cells, the coiling and folding of DNA is organized into bead-like structures called nucleosomes, which are the result of DNA being wrapped around a protein core of histones.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900446>

### Question 1319

In the diagram, which is a melanocyte?

- A
- B
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1902943>

### Question 1320

Describe what happens to a proteins structure and function when it is denatured.

Answer: <https://biology-forums.com/index.php?topic=1877766>

### Question 1321

What plane would you make if you divided a Thanksgiving turkey into equal right and left halves?

- Parasagittal plane
- Coronal plane
- Transverse plane
- Midsagittal plane

e) Cross-sectional plane

Answer: <https://biology-forums.com/index.php?topic=1900369>

### Question 1322

The tail on a sperm cell is the only example of a flagellum in the human body.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900443>

### Question 1323

Where in the figure is the periosteum located?

- A
- C
- D
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1902972>

### Question 1324

Which of the following best describes the basic structure of the plasma membrane of a cell?

- a) lipid bilayer
- b) glycocalyx
- c) phospholipids
- d) glycoproteins
- e) selective permeability

Answer: <https://biology-forums.com/index.php?topic=1900411>

### Question 1325

Which of the light micrographs in the following figure shows the type of epithelial tissue that lines the urinary bladder walls?

- A
- B
- C
- D
- H

Answer: <https://biology-forums.com/index.php?topic=1902898>

### Question 1326

Which phases of a heartbeat shown in the diagram involve repolarization of the heart's four chambers?

- 1 and 4
- 2 and 4
- 4 and 6
- 1, 3, and 5
- 1, 2, 4 and 6
- 3 and 5

Answer: <https://biology-forums.com/index.php?topic=1904131>

### Question 1327

Paraurethral (Skene's) glands secrete

- a) Estrogen
- b) Progesterone
- c) Testosterone
- d) Androgens
- e) Mucus

Answer: <https://biology-forums.com/index.php?topic=1877830>

### Question 1328

The stroke volume at rest is what percentage of end-diastolic volume?

- a) 100%
- b) 8090%

- c) 5060%
- d) 4050%
- e) 0%

Answer: <https://biology-forums.com/index.php?topic=1901045>

### Question 1329

Which of the labeled structures in the diagram is a pain receptor?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903987>

### Question 1330

Labor cannot take place until all of which hormones effects are diminished?

- a) Estrogen
- b) Progesterone
- c) Testosterone
- d) Relaxin
- e) Inhibin

Answer: <https://biology-forums.com/index.php?topic=1877835>

### Question 1331

Which statement is false regarding cytotoxic T cells?

- a) release granzymes that trigger apoptosis
- b) each cytotoxic T cell dies after inactivating an antigen
- c) require stimulation by other cytokines to become activated
- d) release perforin that promotes cytolysis of target cells
- e) responsible for lasting memory of antigens

Answer: <https://biology-forums.com/index.php?topic=1901087>

### Question 1332

Which nerve labeled in the diagram does NOT arise from any plexus?

- A
- B
- D
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1903762>

### Question 1333

In the diagram, which is the papilla of the hair?

- A
- C
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1902944>

### Question 1334

Which portion of the heart wall is responsible for the pumping action?

- E
- F
- G
- H

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Answer: <https://biology-forums.com/index.php?topic=1904123>

### Question 1335

When bones increase in thickness (diameter) as an individual grows to adulthood, which tissue or cells of the bone begin this growth process?

- a) cells of the periosteum differentiating into osteoblasts
- b) chondrocytes at the epiphyseal plate migrating to the bones surface
- c) osteocytes near the bones surface reverting to osteoblasts
- d) endosteal cells migrate to the periosteum and calcify
- e) collagen fibers in the periosteum form a new layer on the bone surface and become calcified

Answer: <https://biology-forums.com/index.php?topic=1900555>

### Question 1336

Which of the following muscles would adduct the arm by acting on the humerus?

- a) deltoid
- b) pectoralis major
- c) supraspinatus
- d) infraspinatus
- e) teres minor

Answer: <https://biology-forums.com/index.php?topic=1900772>

### Question 1337

Which statement is not true of venous return to the heart?

- a) an incompetent tricuspid valve decreases venous return
- b) when standing, the proximal and distal valves in the leg are open
- c) the respiratory pump increase venous return to the left atrium
- d) milking refers to contraction of the calf muscles to increase venous return
- e) venous return is generated by contraction of the left ventricle

Answer: <https://biology-forums.com/index.php?topic=1901060>

### Question 1338

Where is the renal ganglion and renal plexus in the diagram?

- A
- B
- D
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1904021>

### Question 1339

Which abdominopelvic quadrant contains the stomach?

- a) Right lower
- b) Left lower
- c) Right upper
- d) Left upper
- e) None of these are the correct location of the stomach.

Answer: <https://biology-forums.com/index.php?topic=1900372>

### Question 1340

Which ganglion supplies the stomach with postganglionic neurons?

- Middle cervical ganglion
- Inferior cervical ganglion
- Celiac ganglion
- Inferior mesenteric ganglion
- Ciliary ganglion

Answer: <https://biology-forums.com/index.php?topic=1903903>

### Question 1341



In the diagram, which layer is the stratum granulosum?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1902940>

### Question 1342

Which of the neurons in the diagram is modified in a manner that helps enhance the sensitivity of the receptor?

- A
- B
- C
- None of these choices
- All of these choices

Answer: <https://biology-forums.com/index.php?topic=1904027>

### Question 1343

The superior and inferior regions of the bony pelvis are separated by a series of landmarks that indicate a boundary known as the pelvic brim (pelvic inlet). These landmarks are the sacral promontory, the \_\_\_\_\_ of each ilium, and along the superior edges of each pubic bone, and the pubic symphysis.

- a) pectineal lines
- b) iliac crest
- c) arcuate lines
- d) the pubic crests
- e) ramus

Answer: <https://biology-forums.com/index.php?topic=1900630>

### Question 1344

Which structure in the diagram produces mucus?

- C
- A
- F
- G
- I

Answer: <https://biology-forums.com/index.php?topic=1904075>

### Question 1345

Which labeled neuron conducts impulses from the peripheral somatic receptors into the brain or spinal cord?

- A
- B
- C
- More than one answer selection is correct.
- None of the answer selections are correct.

Answer: <https://biology-forums.com/index.php?topic=1903939>

### Question 1346

Bone remodeling, especially bone resorption, plays a role in the maintenance of proper levels of calcium in the blood.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900579>

### Question 1347

If glucose is not immediately needed for ATP production \_\_\_\_\_ may occur.

- a) glycogenesis.
- b) glycogenolysis.
- c) gluconeogenesis.

d) glycolysis.

e) glucolysis.

Answer: <https://biology-forums.com/index.php?topic=1901168>

### Question 1348

During the second half of the embryonic period, the

1. digits of the limbs appear.
  2. webbing between the digits is removed through cellular apoptosis.
  3. the tail disappears.
- a) 1 only  
b) 2 only  
c) 3 only  
d) 1 and 2 are correct.  
e) 1, 2, and 3 are correct.

Answer: <https://biology-forums.com/index.php?topic=1901252>

### Question 1349

Which one represents the blastocyst stage?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904302>

### Question 1350

The esophageal epithelium is comprised of \_\_\_\_\_, while the epithelium of the stomach is comprised of \_\_\_\_\_.

- a) pseudostratified ciliated columnar epithelium which helps move the bolus; stratified squamous epithelium which helps protect against acid.  
b) stratified squamous epithelium which helps protect against friction; simple columnar epithelium which provides secretion and some protection.  
c) simple columnar epithelium which provides secretion and some protection; simple columnar epithelium which provides secretion and some protection.  
d) stratified squamous epithelium which helps protect against friction; stratified squamous epithelium which helps protect against friction  
e) pseudostratified ciliated columnar epithelium which helps move the bolus; simple squamous epithelium which aids in absorption of nutrients

Answer: <https://biology-forums.com/index.php?topic=1901143>

### Question 1351

Which of the following muscles would be needed to flex (curl) the toes?

- a) extensor digitorum brevis and abductor hallucis  
b) flexor digitorum brevis and abductor digiti minimi  
c) lumbricals and abductor hallucis  
d) plantar interossei and flexor digitorum brevis  
e) extensor hallucis brevis and extensor digitorum brevis

Answer: <https://biology-forums.com/index.php?topic=1900791>

### Question 1352

With aging, bones can become more brittle. This brittleness is due to which factor?

- a) a greater rate of bone resorption results in loss of calcium salts from the bone matrix  
b) with aging, there is a reduction in collagen synthesis by osteoblasts, which means a loss of tensile strength  
c) a loss of the ability of bone cells to synthesize vitamin C needed for collagen synthesis  
d) most elderly people are deficient in vitamins A and D, and also in calcium  
e) for women and men, the complete loss of estrogen means that all older individuals will develop osteoporosis

Answer: <https://biology-forums.com/index.php?topic=1900567>

### Question 1353

By what week of development does endochondral ossification of the bones of the limbs begin?

- a) by the end of the 4th week  
b) by the end of the 5th week  
c) by the end of the 6th week  
d) by the end of the 7th week

e) by the end of the 8th week

Answer: <https://biology-forums.com/index.php?topic=1900640>

### Question 1354

Which cell in the figure is actively secreting testosterone?

- H
- F
- C
- A
- D

Answer: <https://biology-forums.com/index.php?topic=1904294>

### Question 1355

Which of the labeled cells in the figure is NOT a neuroglial cell?

- A
- B
- C
- D
- F

Answer: <https://biology-forums.com/index.php?topic=1903461>

### Question 1356

The respiratory system, along with some of the digestive system, begins as an outgrowth of the foregut.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901126>

### Question 1357

Which labeled structures in the figure are canaliculi?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903147>

### Question 1358

In hot weather, the testes are protected from the heat by

- relaxation of the dartos muscle.
- contraction of the cremaster muscle.
- movement to the outside of the pelvic cavity.
- relaxation of the dartos muscle and contraction of the cremaster muscle are both correct.
- relaxation of the dartos muscle, contraction of the cremaster muscle, and movement to the outside of the pelvic cavity are all correct.

Answer: <https://biology-forums.com/index.php?topic=1901195>

### Question 1359

In the diagram of the wrist and hand, where is the capitate bone?

- D
- E
- F
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1903191>

### Question 1360

What is the most abundant compound in all living things?

- carbon dioxide
- water

- c) salt
- d) protein
- e) glucose

Answer: <https://biology-forums.com/index.php?topic=1900391>

### Question 1361

Where is the distal convoluted tubule?

- D
- E
- J
- K
- L

Answer: <https://biology-forums.com/index.php?topic=1904264>

### Question 1362

In the pelvic girdle, the two hip bones unite posteriorly with the sacrum to form the \_\_\_\_\_ joint.

- a) pubic symphysis
- b) sacroiliac
- c) arcuate line
- d) acetabulum
- e) greater sciatic notch

Answer: <https://biology-forums.com/index.php?topic=1900626>

### Question 1363

Which of the following organelles oxidizes toxic substances such as alcohol, and breaks down other potentially harmful by-products of metabolism?

- a) lysosomes
- b) peroxisomes
- c) mitochondria
- d) proteasomes
- e) ribosomes

Answer: <https://biology-forums.com/index.php?topic=1900420>

### Question 1364

Which is not a sign or symptom of inflammation?

- a) contracture of tissue
- b) triggering of nociceptors
- c) erythema
- d) loss of function
- e) localized increase in tissue size

Answer: <https://biology-forums.com/index.php?topic=1901081>

### Question 1365

The primary information carried by the spinocerebellar tracts is pain and temperature.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900929>

### Question 1366

Which represents the correct sequence of development of bone cells?

- a) osteogenic cells osteocytes osteoblasts osteoclasts
- b) osteoblasts osteoclasts osteogenic cells osteocytes
- c) osteoclasts osteoblasts osteocytes osteogenic cells
- d) osteogenic cells osteoblasts osteocytes
- e) osteogenic cells osteoblasts osteocytes osteoclasts

Answer: <https://biology-forums.com/index.php?topic=1900546>

### Question 1367

Expulsion of the placenta may occur well after (>30 minutes) after delivery of the fetus.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901262>

### Question 1368

- Food intake may be regulated by
- levels of certain nutrients in the blood.
  - psychological elements.
  - neural and endocrine signals.
  - signals from the GI tract.
  - All of these choices may help regulate food intake.

Answer: <https://biology-forums.com/index.php?topic=1901182>

### Question 1369

- From which brain vesicle does the medulla oblongata develop?
- myelencephalon
  - metencephalon
  - mesencephalon
  - diencephalon
  - telencephalon

Answer: <https://biology-forums.com/index.php?topic=1900901>

### Question 1370

In the diagram, where is the left auricle of the left atrium?

- C
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1904125>

### Question 1371

The clavicle articulates with which of the following structures to form the sternoclavicular joint?

- acromion
- coracoid process
- coracoid tubercle
- glenoid cavity
- manubrium

Answer: <https://biology-forums.com/index.php?topic=1900611>

### Question 1372

Where is the middle nasal concha?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904183>

### Question 1373

Pancreatic juice does all of the following EXCEPT

- buffer gastric juice.
- provide protein-digesting enzymes in inactive form.
- provide starch-digesting enzymes.
- provide glucagon.
- stop the action of pepsin.

Answer: <https://biology-forums.com/index.php?topic=1901146>

### Question 1374

The thenar eminence is a raised and rounded area on the palm of the hand that is associated with what digit?

- the index finger (finger 2)

- b) the middle finger (finger 3)
- c) the ring finger (finger 4)
- d) the little finger (finger 5)
- e) the thumb

Answer: <https://biology-forums.com/index.php?topic=1900778>

### Question 1375

Which of the following labeled structures is the right sympathetic trunk ganglion?

- E
- B
- L
- M
- N

Answer: <https://biology-forums.com/index.php?topic=1903966>

### Question 1376

In the figure shown, which light micrograph shows the type of connective tissue that contains the Hardest matrix of all connective tissues?

- J
- I
- G
- B
- D

Answer: <https://biology-forums.com/index.php?topic=1902889>

### Question 1377

Edema is defined as the excess volume of blood in the capillaries

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901058>

### Question 1378

Which subspecialty of anatomy studies the structures and function of cells?

- a) Embryology
- b) Systemic anatomy
- c) Histology
- d) Cell biology
- e) Developmental biology

Answer: <https://biology-forums.com/index.php?topic=1900357>

### Question 1379

Which is the only part of the clavicle that articulates with the scapula?

- A
- B
- C
- D
- None of these choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1903180>

### Question 1380

What is line I pointing to?

- Greater curvature
- Lesser curvature
- Body
- Fundus
- Cardia

Answer: <https://biology-forums.com/index.php?topic=1904246>

### Question 1381

Which of the joints shown in the figure represents a condyloid joint?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903213>

### Question 1382

This is a measure of a solutions ability to change the volume of cells by altering their water content.

- a) filtration
- b) normality
- c) tonicity
- d) equivalency
- e) facilitation

Answer: <https://biology-forums.com/index.php?topic=1877767>

### Question 1383

For adequate absorption, all of the following require ingestion with other lipids EXCEPT

- a) vitamin A.
- b) vitamin C.
- c) vitamin D.
- d) vitamin E.
- e) vitamin K.

Answer: <https://biology-forums.com/index.php?topic=1901184>

### Question 1384

Stan is a 35 year old man who is a dedicated long distance runner. He spends hours every week running along neighborhood streets. Recently Stan has had to go to the doctor due to pain in his lower legs that intensifies when he tries to run. There is no swelling or obvious damage, so he is surprised to hear the doctor say he has a fracture of his tibia. Stan is most likely to have which type of fracture?

- a) open (compound) fracture
- b) closed fracture
- c) comminuted fracture
- d) greenstick fracture
- e) stress fracture

Answer: <https://biology-forums.com/index.php?topic=1900562>

### Question 1385

In order for labor to begin

1. oxytocin must be released.
  2. estrogen levels must rise.
  3. the effects of progesterone must be inhibited.
- a) 1 only
  - b) 2 only
  - c) 3 only
  - d) 1 and 2 are correct.
  - e) 1, 2, and 3 are correct.

Answer: <https://biology-forums.com/index.php?topic=1901260>

### Question 1386

Which of the labeled structures in the diagram is the supraspinous fossa?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903184>

### Question 1387

Where in the figure is spongy bone located?

- A
- B
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1902973>

### Question 1388

The most important muscle that powers breathing is the diaphragm.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900843>

### Question 1389

This part of the neuron contains the nucleus and Nissl bodies.

- A
- B
- C
- E
- Both A and B

Answer: <https://biology-forums.com/index.php?topic=1903446>

### Question 1390

What does this figure represent?

- Erythropoiesis
- RBC differentiation
- Emigration
- Clot formation
- Clot retraction

Answer: <https://biology-forums.com/index.php?topic=1904113>

### Question 1391

The function of the nasal conchae is to provide a greater surface area for blood vessels and mucous membranes in the nasal cavity.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900602>

### Question 1392

The hyponychium is the \_\_\_\_\_ of the nail.

- a) free edge
- b) cuticle
- c) nail bed
- d) nail body
- e) nail root

Answer: <https://biology-forums.com/index.php?topic=1900515>

### Question 1393

In the diagram of the ulna and radius, where is the styloid process of the radius?

- A
- B
- E
- F
- None of these choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1903189>

### Question 1394



Where is the greater splanchnic nerve in the diagram?

- A
- B
- C
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1903927>

### Question 1395

Which of the labeled cells in the diagram is a neuroglial cell that produces and assists in the circulation of cerebrospinal fluid?

- A
- B
- C
- D
- F

Answer: <https://biology-forums.com/index.php?topic=1903464>

### Question 1396

Which intrinsic muscle of the hand allows us to move our thumb so that we can oppose (touch) the tip of the other four fingers of the hand?

- a) abductor pollicis brevis
- b) opponens pollicis
- c) flexor pollicis brevis
- d) adductor pollicis
- e) opponens digiti minimi

Answer: <https://biology-forums.com/index.php?topic=1900780>

### Question 1397

Which of the following is not a defense barrier involved with innate defenses?

- a) mucus
- b) fluids secreted by the lacrimal apparatus
- c) flow of urine
- d) sebum
- e) all of these choices are protective barriers

Answer: <https://biology-forums.com/index.php?topic=1901078>

### Question 1398

Where is the levator scapulae?

- H
- F
- I
- L
- A

Answer: <https://biology-forums.com/index.php?topic=1903417>

### Question 1399

A group of cells that have a common origin and function together to perform a specialized group of activities is called a(n)\_\_\_\_\_.

- a) organ
- b) organ system
- c) tissue
- d) organism
- e) molecule

Answer: <https://biology-forums.com/index.php?topic=1900453>

### Question 1400

Which cranial nerve in the diagram is primarily involved in the sense of vision?

- A
- B
- C

- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903768>

### Question 1401

Insulin increases insertion of a glucose transporter in the cell membrane which allows an increased rate of facilitated diffusion, but is NOT absolutely required for glucose transport into cells.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901165>

### Question 1402

The plasma membrane of which structure in the diagram is the initiation site of taste transduction?

- F
- B
- D
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1904079>

### Question 1403

Which structure in the figure is a receptor sensitive to pressure?

- A
- G
- F
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1902935>

### Question 1404

Which statement is not true of the hemodynamics of blood flow?

- systolic blood pressure is the highest pressure in an artery
- an increase in lumen size increases blood flow
- total peripheral resistance is controlled by the arterioles
- a decrease in lumen diameter decreases blood pressure
- diastole is the interval between heart beats

Answer: <https://biology-forums.com/index.php?topic=1901059>

### Question 1405

Which two minerals are stored in major quantities in bone tissue?

- calcium and phosphorus
- calcium and iron
- iron and phosphorus
- calcium and iodine
- calcium and sodium

Answer: <https://biology-forums.com/index.php?topic=1900545>

### Question 1406

The receptor potential in a photoreceptor (e.g., a rod) is caused by the release of an inhibitory neurotransmitter.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900943>

### Question 1407

Which of the labeled endocrine glands secretes steroid hormones in response to long-term stress?

- D
- G
- H
- I

• F

Answer: <https://biology-forums.com/index.php?topic=1904083>

### Question 1408

If the pathway shown in the diagram is a sympathetic division pathway, which neurotransmitter acts at the effector?

- Norepinephrine
- Acetylcholine
- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1903916>

### Question 1409

The shoulder joint has the greatest range of motion of any joint of the body. Which of the following factors contribute to this range of motion?

- 1 the articular capsule is loose
  - 2 (unclear in the text) the glenoid cavity is shallow
  - 3 the deep cup of the glenoid cavity
- a) 1 only
  - b) 2 only
  - c) 3 only.
  - d) all of these
  - e) 1 and 2

Answer: <https://biology-forums.com/index.php?topic=1900680>

### Question 1410

Which somatic sensory receptor is rapidly adapting and responsible for fine touch?

- a) type I cutaneous mechanoreceptor
- b) lamellated corpuscle
- c) nociceptor
- d) corpuscle of touch
- e) type II cutaneous mechanoreceptor

Answer: <https://biology-forums.com/index.php?topic=1900923>

### Question 1411

At which location in the figure do sperm and seminal vesicle secretions first join together in their path to the exterior?

- C
- J
- E
- K
- L

Answer: <https://biology-forums.com/index.php?topic=1904284>

### Question 1412

Sperm comprise most of the volume of semen.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901216>

### Question 1413

Fertilization in humans generally occurs in the

- a) uterus.
- b) ovary.
- c) uterine tube.
- d) cervix.
- e) fimbriae.

Answer: <https://biology-forums.com/index.php?topic=1901236>

### Question 1414

Which of the light micrographs in the following figure shows the type of epithelial tissue found lining the large excretory ducts of esophageal gland and

whose functions include protection and secretion?

- A
- D
- E
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1902896>

### Question 1415

Which labeled structures in the figure are lamellae?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902974>

### Question 1416

The embryonic skull begins developing during the fourth week after fertilization. Which part of these embryonic connective tissues will eventually form the facial bones?

- a) the cartilaginous neurocranium
- b) the membranous neurocranium
- c) the cartilaginous viscerocranium
- d) the membranous viscerocranium
- e) the mesenchyme

Answer: <https://biology-forums.com/index.php?topic=1900639>

### Question 1417

Which statement about the cerebellum is true?

- a) tracts of gray matter within it are called arbor vitae
- b) the cerebellar peduncles attach it to the cerebrum
- c) the cerebellar lobes are also called tentorium cerebelli
- d) its prime function is to fine tune motor function
- e) the sagittal fissure separates it from the cerebrum

Answer: <https://biology-forums.com/index.php?topic=1900888>

### Question 1418

Which of the light micrographs in the following figure shows the type of epithelial tissue whose structure allows it to be stretched or distended?

- A
- D
- E
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1902897>

### Question 1419

Intercostal nerves originate primarily from which area of the spine:

- a) cervical
- b) thoracic and lumbar
- c) thoracic
- d) lumbar
- e) sacral

Answer: <https://biology-forums.com/index.php?topic=1900874>

### Question 1420

In the diagram of the humerus, this structure receives the head of the radius when the forearm is flexed.

- A
- B
- C
- D
- F

Answer: <https://biology-forums.com/index.php?topic=1903186>

### Question 1421

Genetic information in DNA and RNA is stored as a sequence of three nucleotide bases. On DNA a group of three nucleotides is called a \_\_\_\_\_, while on the complementary strand of mRNA, this sequence is called a \_\_\_\_\_.

- a) genome / proteome
- b) intron / exon
- c) base triplet / codon
- d) codon / anticodon
- e) base triplet / anticodon

Answer: <https://biology-forums.com/index.php?topic=1900430>

### Question 1422

Which statement is correct regarding the relationship between the hypothalamus and pituitary gland?

- a) releasing hormones are secreted by the anterior pituitary
- b) the hypothalamus is controlled by the pituitary gland
- c) the posterior lobe of the pituitary secretes inhibiting hormones
- d) the hypothalamus secretes releasing and inhibiting hormones that influence the pituitary gland

Answer: <https://biology-forums.com/index.php?topic=1900961>

### Question 1423

The longer the fibers in a muscle, the less range of motion it is able to produce.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900796>

### Question 1424

Which layer contains the lamina propria?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904239>

### Question 1425

Where is the soft palate?

- C
- E
- G
- Q
- S

Answer: <https://biology-forums.com/index.php?topic=1904180>

### Question 1426

Muscular tissue has several important properties, such as electrical excitability. Another property of muscular tissue is that it is able to stretch, and return to its original size and shape. Which property of muscular tissue is this?

- a) Conductivity
- b) Elasticity
- c) Extensibility
- d) Plasticity
- e) None of these are correct.

Answer: <https://biology-forums.com/index.php?topic=1900706>

### Question 1427

Wounds that only damage the epidermis wont bleed because the epidermis is avascular.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900538>

### Question 1428

Which neurotransmitter is released by the preganglionic neuron at the autonomic ganglion in the diagram?

- Norepinephrine
- Acetylcholine
- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1903975>

### Question 1429

Where is the celiac ganglion and plexus in the diagram?

- A
- B
- D
- C
- G

Answer: <https://biology-forums.com/index.php?topic=1903924>

### Question 1430

The pharynx is part of both the \_\_\_ and the \_\_\_ organ systems.

- a) digestive and muscular
- b) digestive and respiratory
- c) respiratory and muscular
- d) digestive and endocrine
- e) digestive and skeletal

Answer: <https://biology-forums.com/index.php?topic=1901140>

### Question 1431

In the figure shown, which light micrograph shows dense regular connective tissue?

- C
- D
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1902887>

### Question 1432

Which labeled neuron conducts impulses from the peripheral somatic receptors into the brain or spinal cord?

- A
- B
- C
- More than one answer selection is correct.
- None of the answer selections are correct.

Answer: <https://biology-forums.com/index.php?topic=1904035>

### Question 1433

The joint between the atlas and axis vertebrae is an example of a pivot joint.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900696>

### Question 1434

Which structure in the figure produces a protein that helps protect the skin and underlying tissues from heat, microbes and chemicals?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902938>

### Question 1435

Which of the bone features listed below contribute to the elbow joint?

- 1 capitulum
  - 2 head of the radius
  - 3 trochlear notch of the ulna
  - 4 trochlea
  - 5 olecranon
- a) 1, 2, 3, 4
  - b) 1, 3, 4
  - c) 2, 3, 4
  - d) 3, 4, 5
  - e) 3, 5

Answer: <https://biology-forums.com/index.php?topic=1900620>

### Question 1436

In the diagram, a tendon is formed by the merging of the following structures

- C, D, and H
- D and E
- H and C
- C and D
- All of these choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1903378>

### Question 1437

Which of the following correctly traces a sperm from its formation to ejaculation? (Note: not all structures are listed)

- a) straight tubules, rete testes, seminiferous tubules, epididymis, ductus deferens, ejaculatory duct
- b) straight tubules, rete testes, epididymis, seminiferous tubules, ductus deferens, ejaculatory duct
- c) seminiferous tubules, straight tubules, rete testes, epididymis, ductus deferens, ejaculatory duct
- d) seminiferous tubules, rete testes, epididymis, straight tubules, ductus deferens, ejaculatory duct
- e) seminiferous tubules, rete testes, straight tubules, epididymis, ductus deferens, ejaculatory duct

Answer: <https://biology-forums.com/index.php?topic=1901213>

### Question 1438

All the following hormones are produced and secreted by the ovaries EXCEPT

- a) estradiol.
- b) estrone.
- c) progesterone.
- d) inhibin.
- e) follicle-stimulating hormone.

Answer: <https://biology-forums.com/index.php?topic=1877801>

### Question 1439

The muscle that serves as the prime mover during a movement is called the

- a) antagonist.
- b) agonist.
- c) synergist.
- d) asynergist.

e) fixator.

Answer: <https://biology-forums.com/index.php?topic=1877780>

### Question 1440

Compact bone is composed of units called osteons. In contrast, spongy bone is composed of \_\_\_\_\_.

- a) trabeculae
- b) cartilage
- c) periosteum
- d) yellow bone marrow
- e) lacunae

Answer: <https://biology-forums.com/index.php?topic=1900549>

### Question 1441

Which tonsils are found in the oropharynx?

- V
- R
- S
- Q
- U

Answer: <https://biology-forums.com/index.php?topic=1904175>

### Question 1442

Which labeled structure in the figure acts as the natural pacemaker of the heart?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904143>

### Question 1443

What do colored regions on body's surface in the diagram represent?

- Dermatomes
- Areas of referred pain
- Regions of nociceptors
- Areas supplied by the primary somatosensory area
- Motor nuclei

Answer: <https://biology-forums.com/index.php?topic=1904033>

### Question 1444

Where is the mental foramen in the diagram?

- C
- D
- E
- F
- None of these answer choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1903167>

### Question 1445

Comparatively, which phase is the longest during an action potential in a ventricular contractile fiber?

- a) refractory
- b) depolarization
- c) contraction
- d) repolarization

Answer: <https://biology-forums.com/index.php?topic=1901008>



### Question 1446

Which of the labeled structures in the diagram are fragments of older osteons that have been partially destroyed during bone rebuilding or growth?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902968>

### Question 1447

In the diagram, what is the basic functional unit of a myofibril?

- B
- C
- F
- Both B and C
- All of these choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1903384>

### Question 1448

What type of molecule is shown in the diagram? Where in a eukaryotic cell would this type of molecule be commonly found? What special chemical properties does this molecule possess that allows it to accomplish its functions?

Answer: <https://biology-forums.com/index.php?topic=1902855>

### Question 1449

Which type of joint confers the greatest range of motion?

- a) hinge joint
- b) plane joint
- c) saddle joint
- d) ball-and-socket joint
- e) condyloid joint

Answer: <https://biology-forums.com/index.php?topic=1900676>

### Question 1450

In the diagram, the neurotransmitter, acetylcholine, is released from this area.

- B
- C
- D
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1903380>

### Question 1451

Which type of muscle tissue is found in the walls of hollow organs and is not under voluntary control.

- a) skeletal
- b) cardiac
- c) smooth

Answer: <https://biology-forums.com/index.php?topic=1900482>

### Question 1452

The male and female gonads are considered reproductive and endocrine organs.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900969>

### Question 1453

The amount and kind of melanin present in the cortex and medulla of a hair shaft determines hair color. When melanin is replaced by air bubbles in the shaft, which is the resulting hair color?

- a) black
- b) brown
- c) gray
- d) blond
- e) white

Answer: <https://biology-forums.com/index.php?topic=1900514>

### Question 1454

Where is the left vagus (X) nerve in the diagram?

- A
- C
- D
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1903921>

### Question 1455

Isovolumetric contraction and isovolumetric relaxation both occur when all four valves are closed.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901042>

### Question 1456

What is line J pointing to?

- Right secondary bronchus
- Left secondary bronchus
- Right primary bronchus
- Left primary bronchus
- Carina

Answer: <https://biology-forums.com/index.php?topic=1904190>

### Question 1457

Name the first substance that is incorporated into the new clot.

- a) plasmin
- b) plasminogen
- c) fibrinolysin
- d) heparin
- e) prostacyclin

Answer: <https://biology-forums.com/index.php?topic=1900994>

### Question 1458

The intrinsic muscles of the hand all have their origins on the distal ends of either the radius or ulna, and their insertions on the metacarpals or phalanges of the hand.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900854>

### Question 1459

Which statement does not describe a component of the RBC life cycle?

- a) ruptured RBCs are removed by macrophages in the spleen and liver
- b) iron is ultimately converted to bilirubin which ends up in the liver
- c) the transporter of iron in the blood is transferrin
- d) urobilinogen is eliminated in the feces in the form of stercobilin
- e) biliverdin is the protein that stores iron

Answer: <https://biology-forums.com/index.php?topic=1900985>

### Question 1460

The rectus femoris of the upper leg is an example of what type of fascicle arrangement?

- a) fusiform
- b) triangular
- c) pennate
- d) bipennate
- e) multipennate

Answer: <https://biology-forums.com/index.php?topic=1900736>

### Question 1461

Blood is a complex body fluid. If a vial of blood is drawn for a blood test and is allowed to sit in a rack for some time, the red blood cells will settle out and drift to the bottom of the tube. This process indicates that at least as far as the blood cells are concerned, blood has the properties of what type of fluid?

- a) ionic solution
- b) solution with hydrogen bonds
- c) suspension
- d) colloidal solution
- e) hydrophobic solution

Answer: <https://biology-forums.com/index.php?topic=1900396>

### Question 1462

A compartment is a group of muscles, associated fascia, nerves, and blood vessels, which perform a related function. The arm has both an anterior (flexor) compartment, and a posterior (extensor) compartment. Based upon innervations, the biceps brachii, brachialis and brachioradialis would all be members of the anterior compartment.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900851>

### Question 1463

Which bone cell in the diagram below is an osteoclast?

- A
- B
- C
- D

Answer: <https://biology-forums.com/index.php?topic=1902950>

### Question 1464

Postganglionic neurons from the otic ganglion supply the

- parotid gland.
- heart.
- lungs.
- liver.
- ureter.

Answer: <https://biology-forums.com/index.php?topic=1903907>

### Question 1465

Which of the following effects does not occur during the fight-or-flight response?

- a) the pupils constrict
- b) the airways increase in diameter
- c) blood vessels to skeletal muscles dilate
- d) heart rate speeds up
- e) blood pressure increases

Answer: <https://biology-forums.com/index.php?topic=1900913>

### Question 1466

Where is the arcuate vein?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1904265>

### Question 1467

Which structure in the figure is the main duct for the return of lymph to the blood?

- A
- F
- G
- C
- H

Answer: <https://biology-forums.com/index.php?topic=1904161>

### Question 1468

In the diagram, which layer is the stratum corneum?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1902941>

### Question 1469

The section shown in (c) results from cutting through a \_\_\_\_\_ plane extending through the brain?

- frontal
- sagittal
- oblique
- midsagittal
- transverse

Answer: <https://biology-forums.com/index.php?topic=1902844>

### Question 1470

Where in the figure will you find mature sperm?

- H
- G
- A
- B
- D

Answer: <https://biology-forums.com/index.php?topic=1904293>

### Question 1471

Which of the following are sensory tracts:

- a) lateral spinothalamic and lateral corticospinal
- b) posterior columns and vestibulospinal
- c) anterior spinothalamic and posterior columns
- d) anterior corticospinal and anterior spinothalamic
- e) posterior spinocerebellar and lateral corticospinal

Answer: <https://biology-forums.com/index.php?topic=1900875>

### Question 1472

The quadriceps femoris muscle (made up of a group of four muscles) is the largest muscle of the body.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900857>

### Question 1473

A gomphosis is which type of joint?

- a) fibrous and a suture
- b) fibrous and a syndesmosis

- c) cartilaginous and a synchondrosis
- d) cartilaginous and a symphysis
- e) synovial

Answer: <https://biology-forums.com/index.php?topic=1900662>

### Question 1474

The sympathetic division of the ANS is called the thoracolumbar division because:

- a) the axons of the preganglionic neurons control thoracolumbar inflow
- b) sensory stimulation is received via all thoracic and lumbar nerve roots
- c) it controls only organs and muscles in the thoracic and lumbar areas of the body
- d) its preganglionic neurons cell bodies are located in the gray matter of the thoracic and lumbar segments of the spinal cord

Answer: <https://biology-forums.com/index.php?topic=1900905>

### Question 1475

Which labeled structure is the blind spot of the eye?

- A
- B
- C
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1904063>

### Question 1476

A functional group is a specific arrangement of atoms that when attached to an organic molecule gives that molecule particular properties. What is a common functional group found in dietary fats (fats we eat), and fats found in the body?

- a) Alcohol group
- b) Ester group
- c) Aldehyde group
- d) Carboxyl group
- e) An amino group

Answer: <https://biology-forums.com/index.php?topic=1900397>

### Question 1477

Which zone of the adrenal gland secretes aldosterone?

Mark Nielsen

- A
- B
- C
- D
- None of the zones

Answer: <https://biology-forums.com/index.php?topic=1904084>

### Question 1478

Each serous membrane is divided into a parietal layer and a visceral layer. The visceral layer is attached to and lines the wall of the body cavity.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900493>

### Question 1479

In the diagram, where is the lacrimal bone?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903152>

### Question 1480

Which of the following is true in reference to a blood transfusion?

1. is the transfer of whole blood only
  2. often used to treat anemia
  3. agglutination is not a problem with mismatching blood types
  4. transfusions directly into the red bone marrow
- a) 1 only
  - b) 2 only
  - c) 3 only
  - d) 4 only
  - e) 2 and 4

Answer: <https://biology-forums.com/index.php?topic=1900996>

### Question 1481

A low count of which of the white blood cells shown in the figure may indicate pregnancy, ovulation, or hyperthyroidism?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904120>

### Question 1482

Which of the following labeled structures is the right sympathetic trunk ganglion?

- E
- B
- L
- M
- N

Answer: <https://biology-forums.com/index.php?topic=1904007>

### Question 1483

About 90% of the cells of the epidermis are of which type?

- a) melanocytes
- b) adipocytes
- c) keratinocytes
- d) tactile epithelial cells (Merkel cells)
- e) Intraepidermal macrophages

Answer: <https://biology-forums.com/index.php?topic=1900499>

### Question 1484

The structure labeled I in the diagram belongs to which group of spinal nerves?

- cervical nerves
- thoracic nerves
- lumbar nerves
- sacral nerves
- coccygeal nerves

Answer: <https://biology-forums.com/index.php?topic=1903759>

### Question 1485

Which of the following nerves provides innervation for the external genitals?

- Oculomotor (III) nerve (cranial nerve III)
- Facial (VII) nerve (cranial nerve VII)
- Glossopharyngeal (IX) nerve (cranial nerve IX)
- Vagus (X) nerve (cranial nerve X)
- Pelvic splanchnic nerve

Answer: <https://biology-forums.com/index.php?topic=1904004>

### Question 1486

Lymph travels to the subcapsular sinus from which structure in the figure?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904170>

### Question 1487

Place the layers of the trachea in order from deep to superficial.

- a) mucosa, submucosa, hyaline cartilage, adventitia
- b) submucosa, mucosa, hyaline cartilage, adventitia
- c) adventitia, hyaline cartilage, submucosa, mucosa
- d) adventitia, hyaline cartilage, mucosa, submucosa
- e) hyaline cartilage, submucosa, mucosa, adventitia

Answer: <https://biology-forums.com/index.php?topic=1901101>

### Question 1488

Visceral pain coming from the ovaries is referred to which location(s) in the diagram?

- D
- E
- B
- F
- A

Answer: <https://biology-forums.com/index.php?topic=1904051>

### Question 1489

Which statement is not correct about the dermis?

- a) it is made up of dense, irregular connective tissue
- b) it is thinner in men than in women
- c) it contains collagen and elastin fibers
- d) it provides the blood supply and many sensory receptors for the epidermis
- e) it has a smaller papillary layer, and a thicker reticular layer

Answer: <https://biology-forums.com/index.php?topic=1900506>

### Question 1490

In the figure of a sagittal section of a fingernail shown below, where is the nail root?

- A
- C
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1902915>

### Question 1491

Where is the celiac ganglion and plexus in the diagram?

- A
- B
- D
- C
- G

Answer: <https://biology-forums.com/index.php?topic=1904020>

### Question 1492

Which type of cell junction would you expect to find anchoring the cells of the epidermis to each other. This type of junction gives the skin its ability to endure stretching and other mechanical stresses without tearing.

- a) tight junctions
- b) gap junctions
- c) desmosomes
- d) hemidesmosomes
- e) adherens junctions

Answer: <https://biology-forums.com/index.php?topic=1900457>

### Question 1493

The term decussation means:

- a) to split in half
- b) control of movement
- c) a form of sensory input
- d) crossing
- e) swallowing

Answer: <https://biology-forums.com/index.php?topic=1900885>

### Question 1494

A fibrous joint is a special category of synovial joint that lacks a synovial cavity and permits very little movement.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900689>

### Question 1495

T3 and T4 are water soluble and thus cannot diffuse through the plasma bilayer.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900963>

### Question 1496

Which component of the brain is referred to as the emotional brain as it plays primary role in a wide range of emotions?

- a) basal nuclei
- b) frontal lobe of the cerebrum
- c) corpus callosum
- d) limbic system
- e) cerebral cortex

Answer: <https://biology-forums.com/index.php?topic=1900895>

### Question 1497

The cloaca in an embryo is the result of differentiation of the primitive gut into the midgut.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901249>

### Question 1498

In the diagram of the tibia and fibula, this structure articulates with the talus and forms a protrusion on the medial surface of the ankle.

- E
- F
- G
- Both E and F
- All of these choices are correct.

Answer: <https://biology-forums.com/index.php?topic=1903199>

### Question 1499

Which is not a feature of the capillaries?

- a) are located near almost every cell in the body
- b) connect arterioles to veins
- c) smallest of all vessels
- d) are absent in the cornea
- e) consist of a single layer of cells in their walls

Answer: <https://biology-forums.com/index.php?topic=1901053>



### Question 1500

Which of the neurons is considered to be a bipolar neuron?

- A
- B
- C
- All of the neurons.
- None of the neurons.

Answer: <https://biology-forums.com/index.php?topic=1903449>

### Question 1501

Sister chromatids of a pair of homologous chromosomes form tetrads, and crossing-over (exchange of genetic information between regions of non-sister chromatids in the tetrad) occurs during which phase?

- a) mitotic prophase
- b) meiotic prophase I
- c) mitotic metaphase
- d) meiotic metaphase I
- e) meiotic prophase II

Answer: <https://biology-forums.com/index.php?topic=1900435>

### Question 1502

What is line B pointing to?

- Carina
- Visceral pleura
- Parietal pleura
- Pleural cavity
- Diaphragm

Answer: <https://biology-forums.com/index.php?topic=1904193>

### Question 1503

Which of the labeled structures in the diagram is a lamellated corpuscle?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904032>

### Question 1504

A common facial expression which indicates shock or surprise is when ones mouth drops open. The chin drops and the mouth opens wide. What type of movement is this (hint: it occurs at the temporomandibular joint)?

- a) flexion
- b) abduction
- c) hyperextension
- d) depression
- e) eversion

Answer: <https://biology-forums.com/index.php?topic=1900671>

### Question 1505

Where is the semitendinosus?

- J
- K
- L
- M
- N

Answer: <https://biology-forums.com/index.php?topic=1903445>

### Question 1506

Which area of the myogram shows a sustained contraction where individual twitches are indiscernible?

- A
- B
- C
- D
- none of these choices

Answer: <https://biology-forums.com/index.php?topic=1903393>

### Question 1507

In the photomicrograph of a portion of thick skin shown below, which layer is only seen in thick skin?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1902908>

### Question 1508

Which of the following somatic sensations has an encapsulated nerve ending as its sensory receptor?

- a) tickle
- b) pain
- c) heat or cold
- d) pressure
- e) itch

Answer: <https://biology-forums.com/index.php?topic=1900921>

### Question 1509

\_\_\_\_\_ are part of a synovial joint capsule, but do resemble the structure of the capsule, with a dense outer membrane, and a lining like a synovial membrane. They can be found in any area where friction and a need for additional cushioning is an issue between skin and bones, between muscles and bones, and ligaments and bones.

- a) menisci
- b) labra
- c) fat pads
- d) bursae
- e) tendon sheaths

Answer: <https://biology-forums.com/index.php?topic=1900665>

### Question 1510

The abrupt increase in ventilation seen at the start of exercise is due in part to

- a) motor impulses from the primary motor cortex.
- b) slightly decreased oxygen partial pressure.
- c) slightly increased carbon dioxide partial pressure.
- d) increased temperature.
- e) lactic acid production.

Answer: <https://biology-forums.com/index.php?topic=1901124>

### Question 1511

Which of the labeled structures in the diagram represents a type II cutaneous mechanoreceptor that monitors the stretching of skin?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904031>

### Question 1512

What layer is composed of areolar connective tissue and epithelium?

- A
- B
- C
- D
- none of these

Answer: <https://biology-forums.com/index.php?topic=1904238>

### Question 1513

In the diagram, where is the styloid process?

- J
- K
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903156>

### Question 1514

Which of the following diseases result when the cells marked in the histology image are destroyed by the immune system?

- Cushing's disease
- Addison's disease
- Acromegaly
- Type 1 diabetes
- Diabetes insipidus

Answer: <https://biology-forums.com/index.php?topic=1904097>

### Question 1515

Which of the following labeled panels in the figure shows flexion?

- E
- F
- C
- G
- H

Answer: <https://biology-forums.com/index.php?topic=1903218>

### Question 1516

The mastoid process of the temporal bone is an important insertion point for muscles of the neck that move the head.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900838>

### Question 1517

The only muscles that are ever used in breathing are the diaphragm, and the external intercostals muscles.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900844>

### Question 1518

Identify the ganglion cell layer.

- A
- B
- C
- D

Answer: <https://biology-forums.com/index.php?topic=1904065>

### Question 1519

The 1200 mL air remaining in the lungs and noncollapsible airways is considered to be the residual lung capacity because that amount cannot be quantitated with a spirometer.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901112>

### Question 1520

Which statement is true about immunological memory?

- a) the primary response is more powerful than the secondary
- b) cytotoxic T cells differentiate into memory cells upon a second exposure to an antigen
- c) the use of vaccinations is based on the concept of immunological memory
- d) there is an immediate rise in serum antibodies upon exposure to an antigen
- e) memory cells can survive up to several weeks

Answer: <https://biology-forums.com/index.php?topic=1901092>

### Question 1521

Which of the following is not true of blood in its transporting role?

- a) carries nutrients to cells from the gastrointestinal tract
- b) carries oxygen from the cells to the lungs
- c) transports hormones from glands to other parts of the body
- d) carries waste products for elimination
- e) all of these choices are true

Answer: <https://biology-forums.com/index.php?topic=1900979>

### Question 1522

Which of the following best describes the process of bone resorption in bone remodeling?

- a) acids and enzymes released by osteoclasts degrade collagen and dissolve away minerals, which diffuse through the interstitial fluid into nearby blood capillaries
- b) sex hormones stimulates osteoblast activity during growth spurts
- c) osteoblasts secrete the extracellular matrix of bone
- d) osteocytes die and no longer maintain the nutrients needed to preserve the extracellular matrix
- e) the kidneys increase the rate at which calcium is excreted in urine

Answer: <https://biology-forums.com/index.php?topic=1900556>

### Question 1523

The ears and the eyes both develop from ectodermal tissue.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900951>

### Question 1524

The enzyme, produced in the organ labeled C, that produces fatty acids and monoglycerides during digestion is called:

- Sucrase
- Pancreatic lipase
- Salivary amylase
- Trypsin
- Elastase

Answer: <https://biology-forums.com/index.php?topic=1904251>

### Question 1525

Where is the inferior nasal concha?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1904184>

### Question 1526

Which of the following is not involved in platelet plug formation?

- a) platelets sticking to the walls of an injured vessel
- b) vasoconstriction due to serotonin release
- c) release of platelet-derived-growth-factor ((PDGF)
- d) the release of ADH to make the platelets bind to each other
- e) all the above occur in platelet plug formation

Answer: <https://biology-forums.com/index.php?topic=1900993>

### Question 1527

Where is the corpus albicans?

- F
- G
- H
- I
- None of these choices

Answer: <https://biology-forums.com/index.php?topic=1904282>

### Question 1528

The awareness of differences in the external or internal environment is defined as:

- a) perception
- b) transduction
- c) sensation
- d) integration
- e) conduction

Answer: <https://biology-forums.com/index.php?topic=1900918>

### Question 1529

Which of the labeled structures in the diagram is the coracoid process?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903183>

### Question 1530

The trabeculae of spongy bone rearrange themselves as an infant learns to walk so as to be oriented along the lines of stress the bones are subjected to.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900672>

### Question 1531

The greater sciatic notch is a feature of the ischium which allows passage of the sciatic nerve, the longest nerve of the body, through to the leg.

[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1900650>

### Question 1532

Which neurotransmitter is released at the gland by the preganglionic neuron in the diagram?

- Norepinephrine
- Acetylcholine
- Epinephrine
- Dopamine
- Serotonin

Answer: <https://biology-forums.com/index.php?topic=1903973>

### Question 1533

Where is the infraspinatus?

- E
- F
- G
- H
- I

Answer: <https://biology-forums.com/index.php?topic=1903433>

### Question 1534

Which of the following hormones is produced by the cells marked in the thyroid follicle shown in the histology picture?

Mark Nielsen

- calcitonin
- vasopressin
- triiodothyronine (T3)
- antidiuretic hormone (ADH)
- calcitriol

Answer: <https://biology-forums.com/index.php?topic=1904095>

### Question 1535

In the figure of a sagittal section of a fingernail shown, where is the eponychium (cuticle)?

- A
- B
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1902913>

### Question 1536

What is line A pointing to?

- Lumen
- MALT
- Mucosa
- Submucosa
- Muscularis

Answer: <https://biology-forums.com/index.php?topic=1904237>

### Question 1537

Following a serious ear infection, Rosa develops paralysis on one side of her face. Her mouth and eyelids droop on that side. She cant raise her eyebrow or pucker her lips on the affected side either. Which of the following statements are correct about Rosas condition?

1. she has a condition known as Bells Palsy
2. her trochlear nerve (IV) is affected
3. her trigeminal nerve (V) is affected
4. her facial nerve (VII) is affected

- a) 1 only
- b) 2 only
- c) 3 only
- d) 4 only
- e) 1 and 4

Answer: <https://biology-forums.com/index.php?topic=1900745>

### Question 1538

Where on the diagram is a metacarpal bone?

- A
- B

- D
- E
- I

Answer: <https://biology-forums.com/index.php?topic=1903204>

### Question 1539

In a resting person, more oxygen molecules are attached to each hemoglobin molecule in blood in the pulmonary arteries than in the pulmonary veins.  
[b]True or False?[/b]

Answer: <https://biology-forums.com/index.php?topic=1901120>

### Question 1540

Which three muscles make up the hamstring?

- L, M, N
- E, F, G
- H, I, J
- I, J, K
- A, B, C

Answer: <https://biology-forums.com/index.php?topic=1903444>

### Question 1541

The definition of autonomic tone is:

- a) the communication between the autonomic nervous system and the somatic nervous system
- b) the balance between sympathetic and parasympathetic activity
- c) the constant slight contraction seen in skeletal muscles
- d) the canceling out effect of adrenergic and cholinergic responses to a stimulus

Answer: <https://biology-forums.com/index.php?topic=1900911>

### Question 1542

The generation of an action potential is an electrochemical event. This electrical event occurs:

- a) within the neuron
- b) only in nerves with neurolemma
- c) within the myelin sheath
- d) in microglia

Answer: <https://biology-forums.com/index.php?topic=1900866>

### Question 1543

Which structure in the figure is the vocal fold?

- F
- D
- C
- E
- G

Answer: <https://biology-forums.com/index.php?topic=1904236>

### Question 1544

Which of the following figures shows tissue that is found in the trachea?

- B
- C
- E
- F
- G

Answer: <https://biology-forums.com/index.php?topic=1902901>

### Question 1545

Which of the following statements about the process of deamination is FALSE?

- a) required for protein anabolism.
- b) required for oxidation of amino acids in the Krebs cycle.

- c) removes amino group from amino acids
- d) occurs in hepatocytes
- e) results in formation of ammonia

Answer: <https://biology-forums.com/index.php?topic=1901174>

### Question 1546

In the diagram, what represents a pivot joint?

- A
- B
- C
- D
- E

Answer: <https://biology-forums.com/index.php?topic=1903209>

### Question 1547

This major portion of the brain is used to monitor movements initiated by the motor areas of the cerebrum.

- B
- E
- F
- C
- A

Answer: <https://biology-forums.com/index.php?topic=1903766>

### Question 1548

Which of the following is a function of calcium in the body?

- a) nerve cells require extracellular calcium ions (Ca<sup>2+</sup>) for proper functioning
- b) Ca<sup>2+</sup> is a cofactor needed for many enzymes to function properly
- c) Ca<sup>2+</sup> is required for the process of blood clotting
- d) Ca<sup>2+</sup> is needed by muscle cells for contraction
- e) all of these are important roles of calcium in the body

Answer: <https://biology-forums.com/index.php?topic=1900560>

### Question 1549

The obturator foramen is the largest foramen in the body, but is nearly completely closed by the obturator membrane (but nerves and blood vessels are still able to pass through). This foramen is formed by which structures of the pelvic girdle?

- a) ilium and ischium
- b) ilium and pubis
- c) the anterior edge of the acetabulum and the pubis
- d) the ischium and pubis
- e) the ilium, ischium, and pubis

Answer: <https://biology-forums.com/index.php?topic=1900629>

### Question 1550

Which of the following is paired correctly?

- a) external nose: communicates directly with pharynx
- b) external nose: adds resonance
- c) external nose: communicates with nasolacrimal ducts
- d) internal nose: includes the frontal bone and nasal bones
- e) internal nose: detects odors

Answer: <https://biology-forums.com/index.php?topic=1901098>

### Question 1551

Where is the hypogastric plexus in the figure?

- J
- K
- D
- F
- N



Answer: <https://biology-forums.com/index.php?topic=1903914>

### Question 1552

The section shown in (b) results from cutting through a \_\_\_\_\_ plane extending through the brain?

- frontal
- sagittal
- oblique
- midsagittal
- transverse

Answer: <https://biology-forums.com/index.php?topic=1902845>

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