

Question 1

In which one of the following solutions is silver chloride the most soluble?

- A) 0.181 M NaCl
- B) 0.181 M HCl
- C) 0.744 M LiNO₃
- D) 0.0176 M NH₃
- E) pure water

Answer: <https://biology-forums.com/index.php?topic=386528>

Question 2

What noble gas is radioactive?

Answer: <https://biology-forums.com/index.php?topic=386817>

Question 3

Which one of the following substances found in the atmosphere will absorb radiation in the infrared portion of the spectrum?

- A) Kr
- B) O₂
- C) He
- D) N₂
- E) H₂O

Answer: <https://biology-forums.com/index.php?topic=386565>

Question 4

In the symbol below, X = _____.

13 is over 6X

- A) C
- B) N
- C) Al
- D) K
- E) not enough information to determine

Answer: <https://biology-forums.com/index.php?topic=385706>

Question 5

What is the charge on the complex ion in Ca₂[Fe(CN)₆]?

- A) 2-
- B) 3-
- C) 2+
- D) 1-
- E) 4-

Answer: <https://biology-forums.com/index.php?topic=386869>

Question 6

Which gaseous sulfur compound combines with water to form the principal acidic constituent of acid rain?

- A) SO₂
- B) SO₃
- C) SO
- D) H₂S
- E) H₂SO₄

Answer: <https://biology-forums.com/index.php?topic=386566>

Question 7

Silicones are _____.

- A) three-dimensional covalent networks of silicon atoms
- B) chains of alternating silicon and oxygen atoms with attached organic groups
- C) flat sheets of silicon and hydrogen atoms
- D) flat sheets of silicon atoms
- E) three-dimensional covalent networks of SiO₄ tetrahedra

Answer: <https://biology-forums.com/index.php?topic=386804>

Question 8

Of the following, _____ appear(s) to gain mass in a magnetic field.

B2 N2 O2

- A) B2 and N2
- B) N2 and O2
- C) N2 only
- D) B2 and O2
- E) O2 only

Answer: <https://biology-forums.com/index.php?topic=386158>

Question 9

Zinc is more active than cobalt and iron but less active than aluminum. Cobalt is more active than nickel but less active than iron. Which of the following correctly lists the elements in order of increasing activity?

- A) Ni < Fe < Co < Zn < Al
- B) Fe < Ni < Co < Al < Zn
- C) Co < Ni < Fe < Zn < Al
- D) Zn < Al < Co < Ni < Fe
- E) Ni < Co < Fe < Zn < Al

Answer: <https://biology-forums.com/index.php?topic=385827>

Question 10

What is the molecular formula for 1-propanol?

- A) CH4O
- B) C2H6O
- C) C5H12O
- D) C4H10O
- E) C3H8O

Answer: <https://biology-forums.com/index.php?topic=385764>

Question 11

Which quantum numbers must be the same for the orbitals that they designate to be degenerate in a many-electron system?

- A) n and l only
- B) ms only
- C) n only
- D) n, l, ml, and ms
- E) n, l, and ml

Answer: <https://biology-forums.com/index.php?topic=385917>

Question 12

Polyatomic ions with an odd number of electrons will _____ the octet rule.

Answer: <https://biology-forums.com/index.php?topic=386086>

Question 13

Which of the following would produce a basic solution?

- A) CO, CO2, and BeH2
- B) Na2O and MgO
- C) CO and CO2
- D) BeH2 only
- E) Na2O, MgO, and BeH2

Answer: <https://biology-forums.com/index.php?topic=386750>

Question 14

The relative biological effectiveness (RBE) values of beta rays, gamma rays, and alpha rays are _____, respectively.

Answer: <https://biology-forums.com/index.php?topic=386736>

Question 15

Which of the following equations shows an incorrect relationship between pressures given in terms of different units?

- A) 152 mm Hg = 2.03×10^4 Pa
- B) 1.0 torr = 2.00 mm Hg
- C) 0.760 atm = 578 mm Hg
- D) 1.00 atm = 760 torr
- E) 1.20 atm = 122 kPa

Answer: <https://biology-forums.com/index.php?topic=386180>

Question 16

An elastomer will fail to regain its original dimensions following a distortion beyond its _____.

- A) phase boundary
- B) London force
- C) crystallinity
- D) elastic limit
- E) glass transition

Answer: <https://biology-forums.com/index.php?topic=386359>

Question 17

Hydration is a specific example of the phenomenon known generally as _____.

- A) condensation
- B) disordering
- C) salutation
- D) solvation
- E) dilution

Answer: <https://biology-forums.com/index.php?topic=386384>

Question 18

The ratio of the actual value of a colligative property to the value calculated, assuming the substance to be a nonelectrolyte, is referred to as _____.

- A) osmotic pressure
- B) freezing point depression
- C) Henry's law
- D) the van't Hoff factor
- E) vapor pressure lowering

Answer: <https://biology-forums.com/index.php?topic=386422>