

### Question 1

Which of the following genital organisms is not considered a national level reportable genital pathogen on isolation or detection?

- a. *Listeria monocytogenes*
- b. *Candida albicans*
- c. *Haemophilus ducreyi*
- d. Hepatitis A

Answer: <https://biology-forums.com/index.php?topic=402712>

### Question 2

You have accepted an evening position in a hospital microbiology department. Your new employer should provide you with

- a. the opportunity to receive the hepatitis B vaccine at a reasonable cost.
- b. a safety training program that you must complete during your day off.
- c. a mechanism for reporting incidents of injury and exposure.
- d. access to your personnel file.

Answer: <https://biology-forums.com/index.php?topic=402550>

### Question 3

A blood culture reveals the Gram stain results observed in the image provided.

Source: CDC

The microbiologist should

- a. ignore this organism as a contaminant.
- b. call the physician and report it as presumptive *Bacillus anthracis*.
- c. suspect *Clostridium* spp. and plate to anaerobic media.
- d. follow the CDC recommendations for the workup of a potential *Bacillus anthracis*.

Answer: <https://biology-forums.com/index.php?topic=402983>

### Question 4

An oxidase and catalase positive, motile, fusiform gram-negative rod is isolated from a dog bite wound. Select the medium and atmosphere where it will grow.

- a. sheep blood agar in ambient air.
- b. chocolate agar in carbon dioxide.
- c. MacConkey agar in carbon dioxide.
- d. a and b.

Answer: <https://biology-forums.com/index.php?topic=402314>

### Question 5

A 22-year-old male has recently adopted an Akita puppy that develops diarrhea soon after he takes it home. He soon develops bloody diarrhea and visits his physician. The doctor submits a stool for routine culture and ova and parasite examination. The O & P examination was negative. The routine culture reveals no *Salmonella*, *Shigella*, or verotoxin producing *E. coli*. On special medium, at a unique temperature and atmosphere, a slightly spreading, gray, flat colony is observed. A Gram stain of the colony provides gram-negative rods that appear "S" shaped. Which of the following tests can be used to screen and presumptively identify this stool pathogen?

- a. Catalase and oxidase
- b. Hippurate hydrolysis
- c. Indoxyl acetate
- d. All of the above

Answer: <https://biology-forums.com/index.php?topic=402367>

### Question 6

Which of the following properties or reactions consistently differentiates gram-negative rods of the Enterobacteriaceae from the non-fermenting gram-negative rods?

- a. Growth on MacConkey
- b. TSI reaction of K/A or A/A
- c. Oxidase reaction
- d. Presence of LPS

Answer: <https://biology-forums.com/index.php?topic=402252>

### Question 7

Which of the following oxidase-positive, gram-negative diplococcus relies on its capsule to escape the host's immune system?

- a. Butyrate esterase positive

- b. Glucose positive
- c. Glucose and maltose positive
- d. Glucose, maltose, and lactose positive

Answer: <https://biology-forums.com/index.php?topic=402958>

### Question 8

You have isolated a suspected *Cryptococcus neoformans* from the cerebrospinal fluid of an individual with AIDS. Which of the following tests is required for a rapid presumptive identification?

- a. Urea hydrolysis
- b. Caffeic acid production
- c. Presence of a capsule
- d. All of the above

Answer: <https://biology-forums.com/index.php?topic=402401>

### Question 9

An acute red and warm skin infection presenting with pain, swelling, and tenderness but lacking the presence of visible pus is known as

- a. carbuncle.
- b. erythrasma.
- c. impetigo.
- d. cellulitis.

Answer: <https://biology-forums.com/index.php?topic=402726>

### Question 10

Which test should be used to determine if *Mycobacterium tuberculosis* colonies isolated from the sputum of two patients housed in the same room are the same organisms?

- a. DNA amplification
- b. Restriction fragment length polymorphism
- c. Nucleic acid probe
- d. Phenotypic, biochemical, and susceptibility results

Answer: <https://biology-forums.com/index.php?topic=402853>

### Question 11

The immunoglobulin that has the capacity to bind the most available antigen is

- a. IgA
- b. IgD
- c. IgG
- d. IgM

Answer: <https://biology-forums.com/index.php?topic=402536>

### Question 12

A sterile arthritis may occur after

- a. a compound fracture.
- b. replacement of a joint with a prosthetic device.
- c. periodontal disease.
- d. a tick bite.

Answer: <https://biology-forums.com/index.php?topic=402827>

### Question 13

A 4-year-old male is seen by the pediatrician because his ear hurts. The physician notes a bulging and red eardrum. She will

- a. collect a specimen via tympanocentesis.
- b. treat based on the most likely bacterial pathogens.
- c. collect a swab of the ear canal.
- d. collect a throat swab.

Answer: <https://biology-forums.com/index.php?topic=402787>

### Question 14

The slide coagulase and the *Staphylococcus latex* agglutination tests are similar in that both test for the presence of

- a. protein A.
- b. free coagulase.
- c. clumping factor.

d. thermonuclease.

Answer: <https://biology-forums.com/index.php?topic=402928>

### Question 15

A pelvic mass is aspirated from a 27-year-old female. The direct Gram stain of the aspirate is provided.

Source: CDC

The microaerotolerant organism isolated should be

- a. vancomycin susceptible, catalase and indole negative, and nitrate positive.
- b. vancomycin susceptible, catalase, indole, and nitrate positive.
- c. vancomycin susceptible, catalase, indole, and nitrate negative.
- d. vancomycin resistant, catalase, indole, and nitrate negative.

Answer: <https://biology-forums.com/index.php?topic=402414>

### Question 16

A 18-year-old female contact lens wearer presents to her eye doctor with severe pain due to keratitis. He treats her empirically with acyclovir for herpes simplex, virus but the infection does not resolve. He should now suspect

- a. Chlamydia trachomatis.
- b. Neisseria gonorrhoeae.
- c. adenovirus.
- d. Acanthamoeba spp.

Answer: <https://biology-forums.com/index.php?topic=402765>

### Question 17

If you were a T cell, where would you have spent your growing years?

- a. Bone marrow
- b. Blood
- c. Thyroid
- d. Thymus

Answer: <https://biology-forums.com/index.php?topic=402725>

### Question 18

Infection due to Brucella spp. is often slow to develop, long term, and displaying periodicity. This can be explained by the organism's ability to

- a. colonize the upper respiratory tract prior to infection.
- b. travel and hide in the reticuloendothelial system.
- c. cause infection as the vaccine wanes in adults.
- d. change its surface antigens.

Answer: <https://biology-forums.com/index.php?topic=403003>

### Question 19

What portion of a blood sample should be used for testing for the presence of viruses?

- a. White blood cells
- b. Red blood cells
- c. Serum
- d. Platelets

Answer: <https://biology-forums.com/index.php?topic=402911>

### Question 20

Which of the following Mycobacterium spp. is considered fastidious?

- a. M. haemophilum
- b. M. avium-intracellulare complex
- c. M. tuberculosis
- d. M. fortuitum complex

Answer: <https://biology-forums.com/index.php?topic=402242>