Test Bank for Koneman's Color Atlas and Textbook of Diagnostic Microbiology 7th Procop

Chapter 01: Introduction to Microbiology Part I: The Role of the Microbiology Laboratory in the Diagnosis of Infectious Diseases: Guidelines to Practice and Management

1. Which emerging pathogen was recognized as late as 2013?
A. *Legionella*
B. Hepatitis C virus
C. Ebola virus
D. Chikungunya virus
E. Hantaan virus

2. When organisms exist together and neither benefit nor are damaged, it is termed:
A. parasitism.
B. symbiosis.
C. mutualism.
D. commensalism.
E. predatorism.

3. When two organisms live together and one benefits at the expense of the other (i.e., one lives off the other), this situation is:
A. parasitism.
B. symbiosis.
C. mutualism.
D. commensalism.
E. phoresis.

4. Virulence is **best** defined as:
A. the sum of the characteristics that increase the ability of a microorganism to cause disease.
B. that which requires the production of endotoxins.
C. that which requires the production of exotoxins.
D. the ability of a microorganism to produce hydrolytic enzymes.
E. that which necessitates the production of a capsule.

5. *Rickettsia, Ehrlichia,* and *Anaplasma* are examples of which group of organisms?
A. Opportunistic pathogens
B. Nosocomial pathogens
C. Obligate intracellular pathogens
D. Facultatively intracellular pathogens
E. Free-living pathogens

6. Which type of cell is the primary cell of response in acute inflammation?
A. Plasma cell
B. Macrophage
C. T cell
D. Dendritic cell
E. Neutrophil

7. Which microorganism is characterized primarily by an acute inflammatory response?
A. *Treponema pallidum*
B. *Mycobacterium avium*
C. *Coccidioides immitis*
D. *Staphylococcus aureus*
E. *Histoplasma capsulatum*

8. Which of the following represents the final phase of the diagnostic cycle?
A. The physician examines the patient.
B. Electronic or written orders are submitted.
C. The specimen is received in the laboratory.
D. The requested tests are performed.
E. The physician interprets the report and institutes therapy.

9. Which is true regarding tissue or aspirate specimens compared with swab specimens?
A. Swab specimens are generally considered superior to tissue or aspirate specimens.
B. Swab specimens are equivalent to deep biopsy or aspirate specimen when assessing wounds.
C. Swabs are generally considered inferior to tissue or aspirate, particularly if potentially contaminating microbiota is present.
D. Tissue and aspirate specimens should be avoided at all costs, as they are patient dissatisfiers.
E. Swab specimens are unacceptable to collect pharyngeal specimens for group A *Streptococcus* testing.

10. When cultures are ordered, what other test should usually also be performed?
A. Serologic studies
B. Molecular studies
C. Antigen-detection assays
D. A complete blood count
E. A direct examination (i.e., smears/Gram's stain, etc.)

11. A respiratory specimen contaminated with squamous epithelial cells is received in the laboratory. Which of the tests ordered should be rejected?
A. The mycobacterial culture
B. The fungal culture
C. The influenza RT-PCR request
D. The aerobic bacterial culture
E. The *Pneumocystis* PCR or smear

12. It has been suggested that which of the following tests be discontinued because of lack of sensitivity and specificity?
A. The acid-fast stain for mycobacteria
B. Gram's stain
C. Bacterial antigen-detection tests on CSF
D. Midstream-collected urine culture
E. Respiratory cultures from sputa

13. What two cell types are evaluated in Murray and Washington's assessment of sputum specimens?
A. Plasma cells and epithelial cells
B. Neutrophils and epithelial cells
C. Lymphocytes and neutrophils
D. Lymphocytes and plasma cells
E. Neutrophils and plasma cells

14. What is the advantage of fluorochrome staining?
A. It has greater sensitivity than Ziehl–Neelsen staining for mycobacteria.
B. It has greater specificity than Ziehl–Neelsen staining for mycobacteria.
C. It has both a greater sensitivity and specificity compared with Ziehl–Neelsen staining for mycobacteria.
D. Smears can be assessed at a lower initial magnification.
E. It preferentially highlights rapidly growing mycobacteria.

15. Lactophenol cotton blue is used predominantly in which preparation?
A. Fluorochrome staining
B. Culture assessment in mycology
C. Direct examination in virology
D. Real-time PCR
E. The fourth-generation HIV assay

16. Which of the following medium is selective for (i.e., enhances the growth of) gram-positive bacteria?
A. Cefsulodin, Irgasan, Novobiocin (CIN) agar
B. Colistin, Nalidixic acid (CNA)
C. Eosin methylene blue (EMB)
D. Hektoen enteric agar (HE)
E. Mycobiotic agar

17. Although the smelling of culture plates is discouraged, sometime one can detect the odor of particular bacteria when working up cultures. Which organism characteristically smells like bleach?
A. *Citrobacter*
B. *Alkaligenes*
C. *Clostridium*
D. *Eikenella*
E. *Pseudomonas*

18. Which rapid test is useful for the preliminary grouping of a gram-positive coccus as a *Staphylococcus*?
A. Bacitracin disk susceptibility
B. A positive CAMP test
C. Optochin susceptibility
D. Catalase positivity
E. Hippurate hydrolysis

19. The L-pyrrolidonyl-β-naphthylamide (PYR) test is most commonly used for the rapid identification of which organism?
A. *Listeria*
B. *Enterococcus*
C. *Micrococcus*
D. *Escherichia*
E. *Trichosporon*

20. Which test should be performed in a prompt manner because a delayed result in an infected patient could lead to death?
A. CSF PCR for herpes simplex virus
B. HIV genotyping
C. Malaria smear
D. Urine culture
E. Stool ova and parasite microscopic examination

Answer Key

1. D
2. D
3. A
4. A
5. C
6. E
7. D
8. E
9. C
10. A
11. D
12. C
13. B
14. D
15. B
16. B
17. D
18. D
19. B
20. C

