2025/06

SET B

BACHELOR OF MEDICAL LABORATORY TECHNOLOGY
SECOND SEMESTER
MICROBIOLOGY II
BMLT - 204

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs. **Full Marks: 70**

(Objective)

Time: 30 min. **Marks: 20**

Choose the correct answer from the following: ***1×20=20***

1. Which of the following is not a Biomedical waste?
   a. Animal waste
   b. Microbiological waste
   c. Chemical waste
   d. Domestic waste

2. What does PPE stand for?
   a. Protective Preventative Equipment
   b. Personal Preventative Equipment
   c. Personal Protective Equipment
   d. People's Protective Equipment

3. Autoclaving and microwaving are done for which of the following types of medical waste
   a. human anatomical waste
   b. recyclable contaminated waste
   c. cytotoxic drugs
   d. microbiological waste

4. Can syringes be recycled?
   a. No
   b. Sometimes
   c. Only the plastic
   d. None of the above

5. Best culture mediam for Corynebacterium diphtheria?
   a. L-J media
   b. MacConkey agar
   c. Loefflers serum slope
   d. Saboured dextrose agar

6. Metachromatic granules of Corynebacterium diphtheriaceaebestained by all except
   a. Neisser's stain
   b. Albert's stain
   c. Ziehl-Neelsen stain
   d. Ponder's stain

7. How is diphtheria spread from person to person?
   a. Through contaminated food
   b. Through direct contact with an infected person's skin
   c. Through respiratory droplets
   d. Through contaminated water

8. The principle involved in the streak plate method is
   a. Separation
   b. Streaking
   c. Isolation
   d. Dilution

9. Separation of a single colony is
   a. Pure-culturing
   b. Isolation
   c. Separation
   d. Both a and b

10. Which of the following below is use in cougulase test
   a. Plasma
   b. Serum
   c. Normal saline
   d. Both a & b

11. Staph. epidermidis can be identify from another species by
   a. Cougulase test
   b. Optochin sensitivity testing
   c. Bacitracin sensitivity testing
   d. Novobiocin sensitivity testing

12. Which of the following bacteria can be present normally in the conjunctiva?
   a. *Corynebacterium xerosis*
   b. Staphylococcus epidermidis
   c. *Moraxella spp*
   d. All of the above

13. Detection of bacterial capsule is done by
   a. Indian ink stain
   b. Negrosine dye
   c. Both a & b
   d. AFB stain

14. Staphylococcus cell wall contains
   a. Thin peptidoglycan layer
   b. Thick peptidoglycan layer
   c. Both a & b
   d. It contains mycolic acid

15. Which of following mouth enzyme inhibit microorganism
   a. Amylase
   b. Lipase
   c. Catalase
   d. Pepsin

16. Which of the following is not method of AST
   a. Kary-baur disc diffusion method
   b. Agar dilution method
   c. Broth dilution method
   d. Karby-Bauer disc diffusion method

17. Vaccination induces:
   a. Active natural immunity
   b. Active artificial immunity
   c. Passive natural immunity
   d. Passive artificial immunity

18. Clinical or subclinical infections lead to
   a. Active natural immunity
   b. Active artificial immunity
   c. Passive natural immunity
   d. Passive artificial immunity

19. Which of the following bacteria is cell wall deficient?
   a. Salmonella
   b. E coli
   c. Mycoplasma
   d. Staphylococcus aureus

20. Lophotrichousflagellum arrangement Seen in
   a. Alcaligenes faecalis
   b. Spirilla
   c. Vibrio
   d. Salmonella

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Descriptive

Time : 2 hrs. 30 min. Marks : 50

[Answer question no.1 & any four (4) from the rest]

1. **a.** Define acquired immunity in details. **6+4=10**
   b. Draw Identification chart of gram positive bacteria.

2. **a.** Define Antibody. Draw the structure of immunoglobulin. **6+4=10**
   b. What are the characteristic of normal flora? What is resident and transient flora

3. **a.** Explain the factor affecting antigenicity. **8+2=10**
   b. Write the principle of catalase test.

4. **a.** Define bacterial cell. Explain its morphology along with diagram. **5+5=10**
   b. Discuss the 4 phases of Bacterial Growth Curve with an appropriate graphical representation.

5. **a.** Explain flagella in details along with diagrams. **6+4=10**
   b. Short note on Biomedical waste management.

6. Explain the normal flora of Human body. **10**

7. Describe the morphology, cultural characteristics, pathogenesis and laboratory diagnosis of *Staphylococcus aureus*. **10**

8. List the Names of Biochemical Tests. Explain any three tests in details. **10**

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