

BACHELOR IN MEDICAL LABORATORY TECHNOLOGY
FIRST SEMESTER
MICROBIOLOGY-I
BMLT-104(REPEAT)

**SET
A**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

(Objective)

Marks: 20

1×20=20

Choose the correct answer from the following:

- 40X objective lens also called as
 - Scanning
 - Low Power
 - High power
 - Oil immersion
- The term vaccine was coined by:
 - Louis Pasteur
 - Robert Koch
 - Joseph Lister
 - Edward Jenner
- Peptidoglycan layer of cell wall is thicker in:
 - Parasites
 - Fungi
 - Gram positive bacteria
 - Gram negative bacteria
- Indian ink staining is used to demonstrate:
 - Cell wall
 - Bacterial capsule
 - Bacterial flagella
 - Spore
- Which one of the following bacteria can grow in acidic pH?
 - Klebsiella sp.
 - Lactobacilli
 - Pseudomonas aeruginosa*
 - Vibrio cholerae*
- Father of modern Microbiology is
 - Robert Hook
 - Joseph Lister
 - Robert Koch
 - Louis Pasteur
- Generation time of *Mycobacterium tuberculosis* is about:
 - 20 seconds
 - 20 days
 - 20 hours
 - 20 minutes
- Temperature and time period used in hot air oven is :
 - 160°C for two hours
 - 140°C for two hours
 - 160°C for one hour
 - 170°C for 2 hours
- Which of the following sterilisation conditions are used in autoclave?
 - 160°C, 20 pounds pressure/sq inch, 20 minutes
 - 121 °C , 15 pounds pressure/sq inch, 15 minutes
 - 140°C, 10 pounds pressure/sq inch, 15 minutes
 - None of the above
- Zn staining stands for
 - Zehl Nelson staining
 - Zeihl Nelson staining

- c. Ziehl Neelsen staining
- d. Zeihl Neelsen staining
11. What is the difference between nutrient agar and nutrient broth?
 - a. one is liquid and one is solid
 - b. one is sterile and one is not sterile
 - c. one is acidic and one is basic
 - d. one has extra sugar and one does not
 12. Regardless of the media type, the best temperature for most bacteria is
 - a. 10 -15°C
 - b. 25 - 40°C
 - c. 60°C
 - d. 100°C
 13. Blood agar is used for the cultivation of?
 - a. Mosquitoes
 - b. Fastidious bacteria
 - c. Halophiles
 - d. Red algae only
 14. Which of the following is used as a solidifying agent for media?
 - a. Beef extract
 - b. Peptone
 - c. Agar
 - d. Yeast extract
 15. Which of the following instrument is used for sterilizing the media after it has been prepared?
 - a. Autoclave
 - b. Laminar Air Flow Chamber
 - c. Inoculum Needle
 - d. Incubator
 16. Anaerobic bacteria better can grow in
 - a. In the presence of oxygen
 - b. In the absence of oxygen
 - c. Both a & b
 - d. Presence of oxygen does not matter
 17. Generation time for M.tuberculosis is
 - a. 20 mins
 - b. 20 days
 - c. 20 weeks
 - d. 20 hours
 18. Viable count means
 - a. It measure the total no of living cell
 - b. This indicates total no of bacteria in the specimen
 - c. It count the only death cell
 - d. None of the above
 19. Which one is not part of bacterial growth curve
 - a. Log phase
 - b. Lag phase
 - c. Incubation phase
 - d. Phase of decline
 20. Lipopolysaccharide is a major component of cell wall in:
 - (a) (b)
 - (c) (d) Parasites
 - a. Gram positive bacteria
 - b. Gram negative bacteria
 - c. Both a & b
 - d. Fungi

(Descriptive)

Time : 2 hrs. 30 mins.

Marks : 50

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

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| 1. Define culture media? Write a short note on types of culture media | 10 |
| 2. Write the different methods of sterilization. | 10 |
| 3. Explain parts microscope in details. | 10 |
| 4. a) Write principle, procedure, interpretation Gram staining | 5 |
| b) Write principle, procedure, interpretation acid fast staining | 5 |
| 5. a) Explain briefly the contribution of Pasture and Robert hook in the development of microbiology. | 5 |
| b) Tabulate the difference between between eukarkoytes and prokaryotes | 5 |
| 6. a) Write a short note on collection, preservation and transportation of microbiological specimen. | 6 |
| b) Explain host Parasite relationship briefly. | 4 |
| 7. a) Explain bacterial growth in details | 5 |
| b) Draw the diagram of bacterial growth curve | 5 |
| 8. Define aerobic and anaerobic bacteria. Explain bacterial cell division. | 10 |

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