

**BACHELOR OF MEDICAL LABORATORY TECHNOLOGY
SIXTH SEMESTER
MICROBIOLOGY -VI
BMLT – 604**

**SET
A**

[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

- Example of Live attenuated vaccine is/are
 - Typhoid vaccine
 - Hepatitis B vaccine
 - BCG vaccine
 - All of the following
- Syphilis often called as
 - The Great imitator
 - The terrorizing emperor
 - The Invisible dictator
 - The Appendicitis
- Which of the following etiological agent of endocarditis associated with intravenous drug abusers?
 - Staphylococcus epidermidis
 - Aspergillus fumigates
 - Streptococcus agalactiae
 - Staphylococcus aureus
- In Eijkman test, MacConkey broth tubes are incubated at;
 - 52°C
 - 44°C
 - 37°C
 - 25°C
- Which of the following bacterial infection not result in FUO?
 - Diphtheria
 - Enteric fever
 - Histoplasmosis
 - SLE
- Which of the following below is water borne pathogen
 - Vibrio cholera
 - Salmonella Typhi
 - E coli
 - All of the above
- Temp & time require for flash and holder method for pasteurisation of milk
 - 63°C for 20 sec & 72° for 30 min
 - 63°C for 30 min & 72° for 20 sec
 - 72° for 20 sec & 63°C for 30 min
 - 72° for 30 min & 63°C for 20 sec
- What are the most common types of healthcare-associated infections (HAIs)/Nosocomial infections?
 - Surgical sites infections (SSIs)
 - Ventilator-Associated Pneumonia (VAP)
 - Catheter-associated urinary tract infections (CAUTIs)
 - Central line-associated bloodstream infections (CLABSIs)

9. Identify the predominant gram-negative bacteria typically found in cases of hospital-acquired infection
 - a. *Klebsiella pneumoniae*
 - b. *Staphylococcus aureus*
 - c. *Pseudomonas*
 - d. *Streptococcus pneumoniae*
10. True about Durham's tube
 - a. It's put inverted
 - b. Use to check gas production
 - c. Use in sugar fermentation test
 - d. All of the above
11. Which bacteria use to check sterility of autoclave
 - a. *Azospirillum*
 - b. *Bacillus stearothermophilus*
 - c. *Pseudomonas*
 - d. *Azotobacter*
12. What is the most common cause of a urinary tract infection (UTI)?
 - a. *Escherichia coli*
 - b. *S aureus*
 - c. *Mycoplasma*
 - d. *Chlamydia*
13. What are the signs of UTI?
 - a. Increased frequency of urination
 - b. Painful urination
 - c. Milky/cloudy urine
 - d. All the above
14. What are the most common types of healthcare-associated infections?
 - a. Catheter-associated urinary tract infections (CAUTIs)
 - b. Surgical sites infections (SSIs)
 - c. Ventilator-Associated Pneumonia
 - d. Central line-associated bloodstream infections (CLABSIs)
15. Which of the following pathogen is a frequently found multidrug-resistant bacteria in hospitals?
 - a. *Bacillus anthracis*
 - b. *Mycobacterium tuberculosis*
 - c. *Proteus vulgaris*
 - d. *Pseudomonas aeruginosa*
16. What is the time duration for medical hand washing?
 - a. 30sec
 - b. 60sec
 - c. 2 mins
 - d. 4mins
17. This process involves transferring naked DNA fragments between bacteria
 - a. Vectoring
 - b. Transformation
 - c. Transduction
 - d. Conjugation
18. This virus is used for transduction
 - a. Lambda phage
 - b. T7 phage
 - c. T4 phage
 - d. T2 phage
19. Transfer of genetic material in bacteria through virus is termed as
 - a. transduction
 - b. recombination
 - c. conjugation
 - d. transformation

20. Transfer of genetic material from the donor to recipient bacterium through pili is termed as
- a. transduction
 - b. recombination
 - c. conjugation
 - d. transformation

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(Descriptive)

Time : 2 hrs. 30 min.

Marks : 50

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

1. a. Explain bacteriology of water in details. 8+2=10
b. Name some bacteria that cause water borne disease.
2. a. Write short notes on Nosocomial infection. 8+2=10
b. Mention some causative organism causing it.
3. Explain briefly about fever of unknown origin. 10
4. a. Write short notes on infective endocarditis. 5+5=10
b. Explain STD.
5. a. Define pneumonia. Briefly explain the four types of pneumonia? 1+2+4
Explain in detail the laboratory diagnosis of pneumonia. =7
b. Write a brief note on laboratory diagnosis of sore throat 3
6. a. What is PCR? Explain the steps involved in PCR with diagram. 6+4=10
b. Explain briefly the principle and applications of Western blotting.

7. a. Write short note about the causative agents of diarrhoeal diseases. Explain in brief the various modes of transmission of diarrhoeal diseases? 3+3=6
- b. Write short notes on normal flora of skin. 4
8. a. Explain in details the various methods of gene transfer in bacteria. 7+3=10
- b. Write a short note on hand hygiene.

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