REV-01
BMLT/15/20

2025/05

SET A

BACHELOR OF MEDICAL LABORATORY TECHNOLOGY
FOURTH SEMESTER
MICROBIOLOGY IV
BMLT – 404 [REPEAT]

[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. Most common organism causing Hospital associated infection
   a. Pseudomonas
   b. Staphylococcus
   c. Streptococci
   d. Klebsiella

2. MR negative organism
   a. Klebsiella
   b. E coli
   c. Enterobacter
   d. Both a & c

3. Selective media for Salmonella
   a. TCBS
   b. Citrimide agar
   c. MacConkey agar
   d. None of the above

4. Dienes phenomenon seen in
   a. Klebsiella Spp
   b. E coli
   c. Pseudomonas Spp
   d. Proteus Spp

5. Pyocyanin is secreted by
   a. Streptococcus
   b. Vibrio
   c. Proteus
   d. Pseudomonas

6. The odor of proteus in culture media
   a. Fish
   b. Fruity
   c. Seminal
   d. Both a & c

7. Culture medium used for fungus is
   a. Sabouraud's medium
   b. Nutrient agar
   c. Nutrient broth
   d. Minimal agar medium

8. One of the routine microscopic laboratory identification methods of the fungal specimens is done by using
   a. 70% KOH mount
   b. 50% H2O2
   c. 10% KOH
   d. Formalin

9. Which of the following dermatophyte genus is capable of invading the hair, skin, and nails?
   a. Candida
   b. Epidermophyton
   c. Microsporum
   d. Trichophyton

10. Cholera vibrio biochemically similar common H antigen present in
    a. Group B
    b. Group D
    c. Group A
    d. Group C

11. In LPCB, the function of lactic acid is
    a. It prevent fungus from drying
    b. Act as disinfectant
    c. Preserve fungal structure
    d. It stain the fungal structure

12. Pseudohyphae seen in
    a. *Candida albicans*
    b. *Histoplasmacapsulatum*
    c. *Sporothrixschenckii*
    d. Both b & c

13. In Mycology Indianink dye is use to detect
    a. *Aspergillusfumigates*
    b. *Cryptococcus neoformans*
    c. *Candida albicans*
    d. *Penicillumspp*

14. The selective media used for Cryptocococcus neoformans
    a. SDA
    b. Niger seed agar
    c. Salt milk agar
    d. Brain Heart Infusion agar

15. Rose Gardener's disease is
    a. Penicillosis
    b. Histoplasmosis
    c. Sporotrichosis
    d. Aspergillosis

16. Germ tube test is an identification of
    a. C. albicans
    b. C. auris
    c. C. krusei
    d. C. tropicalis

17. Epidermophyton infects
    a. Hair, skin
    b. Skin , nail
    c. Hair,skin ,nail
    d. NONE

18. Which of the following bacteria produce yellow colonies on Thiosulphate citrate bile salt agar
    a. *Salmonella*
    b. *Vibrio*
    c. *E coli*
    d. *Proteus*

19. In TSI test what does K/ A,Gmeans
    a. Only Glucose is fermented, H_2S produce
    b. Only Glucose is fermented
    c. All sugar are fermented, H_2S produce
    d. Only Glucose is fermented, along with gas produce

20. Causative agent of Shanghai fever is
    a. *Salmonella*
    b. *Pseudomonas aeruginosa*
    c. *E coli*
    d. *Proteus*

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Descriptive

Time : 2 hrs. 30 min. **Marks : 50**

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

1.	**a.** Write morphology, pathogenesis, culture characteristics and laboratory diagnosis of Salmonella.	**6**
	b. Write short note onclinical significance of pseudomonas infection. Why butt is not required in citrate utilization test.	**3+1=4**
2.	**a.** Explain the morphology, pathogenesis and laboratory diagnosis and of pseudomonas.	**7+3=10**
	b. Write the importance for prevention salmonella infection	
3.	**a.** Write short note on E coli.	**8+2=10**
	b. One positive and negative organism of Indole test.	
4.	**a.** Explain briefly about Vibrio cholera.	**5+5=10**
	b. Write short note AST test.	
5.	Discuss Candidiasis in details.	**10**
6.	What are opportunistic infections. Name the diseases under opportunistic infection. Classification of mycology. General Laboratory diagnosis of Mycology.	**2+2+2+ 4=10**
7.	Dermatophytes. Explain in details along with diagrams.	**10**
8.	Cryptococcosis. Explain in details.	**10**

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