

BACHELOR OF MEDICAL LABORATORY  
TECHNOLOGY  
THIRD SEMESTER  
MICROBIOLOGY III  
BMLT – 304 [REPEAT]  
(USE OMR SHEET FOR OBJECTIVE PART)

2023/22

**SET  
A**

Duration: 3 hrs.

Full Marks: 70

Time: 30 min.

Marks: 20

( Objective )

*Choose the correct answer from the following:*

*1×20=20*

1. Conjugate pad of ICT strip (for Ag detection) contains
  - a. Colloidal gold Ab
  - b. Antigen
  - c. Antihuman globulin
  - d. Both a & c
2. Delayed hypersensitivity reaction is mediated by
  - a. T lymphocyte
  - b. B lymphocyte
  - c. Macrophages
  - d. All of the above
3. Allograft means
  - a. Transplant between different species
  - b. Transplant between same species and genetically identical
  - c. Transplant between same species but not genetically identical
  - d. Grafting from own body
4. Indirect Elisa most commonly done for
  - a. Ag
  - b. Ab
  - c. Both
  - d. None of the above
5. Production of colour shows negative result in
  - a. Indirect Elisa
  - b. Sandwich Elisa
  - c. Competitive Elisa
  - d. Direct Elisa
6. Which type of Antibody mediate type I hypersensitivity reaction?
  - a. IgG
  - b. IgA
  - c. IgM
  - d. IgE
7. Largest Immunoglobulin is
  - a. IgG
  - b. IgM
  - c. IgD
  - d. IgA
8. Which Immunoglobulin appear first in infection?
  - a. IgG
  - b. IgA
  - c. IgD
  - d. IgM
9. VDRL is example of
  - a. Precipitation
  - b. Flocculation
  - c. Agglutination
  - d. Both a and b

10. Which immunoglobulin class can pass through placenta?
  - a. IgA
  - b. IgE
  - c. IgM
  - d. IgD
11. Classical pathway of the complement is activated by
  - a. Antigen
  - b. Antibody
  - c. Both a & b
  - d. Ag-Ab complex
12. Cell mediated immunity (CMI) plays an important role in:
  - a. Allograft rejection
  - b. Graft-versus-host reaction
  - c. Type IV hypersensitivity reactions
  - d. All of the above
13. B-lymphocytes which have a long lifespan and can recognise the same antigen on subsequent exposure are named:
  - a. Memory cells
  - b. Natural killer cells
  - c. Killer cell
  - d. All of the above
14. Grave's Disease is the example of
  - a. Haemolytic disease
  - b. Systemic Disease
  - c. Organ specific
  - d. Both b & c
15. Which immunity plays a major role in pathogenesis of Mycobacterium tuberculosis
  - a. Cell mediated immunity
  - b. Humoral immunity
  - c. Local immunity
  - d. None of the above
16. A positive tuberculin test is indicated by induration of
  - a. 10 mm or more in diameter
  - b. 5-9 mm in diameter
  - c. 2-4 mm in diameter
  - d. None of the above
17. The generation time for lepra bacilli is
  - a. 20 minutes
  - b. 2 hours
  - c. 20 hours
  - d. 12-13 days
18. Malta fever is also called as
  - a. Undulant fever
  - b. Relapsing fever
  - c. Hemorrhagic fever
  - d. Rat bite fever
19. Most sensitive test for Treponema
  - a. VDRL
  - b. RPR
  - c. FTA-ABS
  - d. Kahn
20. Nagler's reaction is shown by
  - a. Cl. tetani
  - b. Cl. botulinum
  - c. Cl. perfringens
  - d. Cl. septicum

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**( Descriptive )**

Time : 2 hrs. 30 min.

Marks : 50

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

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| 1. Explain briefly about competitive and sandwich ELISA along with diagram   | 10     |
| 2. Define antibody and antigen. Write notes on IgM and IgG.  | 10     |
| 3. a. Explain briefly about Coomb's Testing<br>b. Write short notes on indirect IFT.   | 5+5=10 |
| 4. Write short note on classical pathway.  | 10     |
| 5. a. Define precipitation and agglutination reaction along with example.<br>b. Explain briefly about hypersensitivity reaction.   | 4+6=10 |
| 6. a. Explain the morphology, cultural characteristics and laboratory diagnosis of Mycobacterium tuberculosis.<br>b. Write a short note on laboratory diagnosis of Mycobacterium laprea. | 7+3=10 |
| 7. a. Explain the morphology, cultural characteristics and laboratory diagnosis of Brucella<br>b. Explain the morphology and laboratory diagnosis of Clostridium tetani.                 | 6+4=10 |
| 8. a. Write a note on pathogenesis of Clostridium perfriengens<br>b. Write procedure and interpretation of ZN staining along with diagram.   | 4+6=10 |

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