

REV-01
BMLT/48/24/29

BACHELOR OF MEDICAL LABORATORY
TECHNOLOGY
THIRD SEMESTER
MICROBIOLOGY III
BMLT – 304

(USE OMR SHEET FOR OBJECTIVE PART)

2023/12

**SET -
B**

Duration: 3 hrs.

Full Marks: 70

Time: 30 min.

(Objective)

Marks: 20

Choose the correct answer from the following:

1×20=20

1. 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
2. Nagler's reaction is shown by
 - a. Cl. tetani
 - b. Cl. botulinum
 - c. Cl. perfringens
 - d. Cl. septicum
3. Malta fever is also called as
 - a. Undulant fever
 - b. Relapsing fever
 - c. Hemorrhagic fever
 - d. Rat bite fever
4. Most sensitive test for Treponema
 - a. VDRL
 - b. RPR
 - c. FTA-ABS
 - d. Kahn
5. The generation time for lepra bacilli is
 - a. 20 minutes
 - b. 2 hours
 - c. 20 hours
 - d. 12-13 days
6. 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
7. 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
8. Grave's Disease is the example of
 - a. Haemolytic disease
 - b. Systemic Disease
 - c. Organ specific
 - d. Both b & c

9. 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
10. Classical pathway of the complement is activated by
 - a. Antigen
 - b. Antibody
 - c. Both a & b
 - d. Ag-Ab complex
11. Conjugate pad of ICT strip (for Ag detection) contains
 - a. Colloidal gold Ab
 - b. Antigen
 - c. Antihuman globulin
 - d. Both a & c
12. Delayed hypersensitivity reaction is mediated by
 - a. T lymphocyte
 - b. B lymphocyte
 - c. Macrophages
 - d. All of the above
13. Indirect Elisa most commonly done for
 - a. Ag
 - b. Ab
 - c. Both
 - d. None of the above
14. Largest Immunoglobulin is
 - a. IgG
 - b. IgM
 - c. IgD
 - d. IgA
15. VDRL is example of
 - a. Precipitation
 - b. Flocculation
 - c. Agglutination
 - d. Both a and b
16. Production of colour shows negative result in
 - a. Indirect Elisa
 - b. Sandwich Elisa
 - c. Competitive Elisa
 - d. Direct Elisa
17. Which immunoglobulin class can pass through placenta?
 - a. IgA
 - b. IgE
 - c. IgM
 - d. IgD
18. Which Immunoglobulin appear first in infection?
 - a. IgG
 - b. IgA
 - c. IgD
 - d. IgM
19. 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
20. Which type of Antibody mediate type 1 hypersensitivity reaction?
 - a. IgG
 - b. IgA
 - c. IgM
 - d. IgE

(Descriptive)

Time : 2 hrs. 30 min.

Marks : 50

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

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 5+5=10
b. Write short notes on indirect IFT.
4. Write short note on classical pathway. 10
5. a. Define precipitation and agglutination reaction along with example. 4+6=10
b. Explain briefly about hypersensitivity reaction.
6. a. Explain the morphology, cultural characteristics and laboratory diagnosis of Mycobacterium tuberculosis. 7+3=10
b. Write a short note on laboratory diagnosis of Mycobacterium laprea.
7. a. Explain the morphology, cultural characteristics and laboratory diagnosis of Brucella 6+4=10
b. Explain the morphology and laboratory diagnosis of Clostridium tetani.
8. a. Write a note on pathogenesis of Clostridium perfringens 4+6=10
b. Write procedure and interpretation of ZN staining along with diagram.

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