

2025

M.Sc. 3rd Semester Examination
BIOMEDICAL LABORATORY SCIENCE
AND MANAGEMENT

Paper : BML - 301

(Clinical Immunology and Serology)

Full Marks : 50

Time : Two Hours

The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.

Group - A

Answer any *four* questions : 2×4=8

1. State the different complications occur in ASO positive patient during sample collection.
2. Write the full forms of NAAT and NNRTIs.
3. State the differences between OT and PPD for tuberculin test.
4. Define anamnestic reaction.
5. Why titer estimation is considered as a semi-quantitative test?

P.T.O.

(2)

6. How could you differentiate plasma cells from memory cells?

Group - B

Answer any *four* questions : $4 \times 4 = 16$

7. State the justification of Tzanck smear preparation. How do you prepare it? $2+2$
8. Write the genomic characteristic features of HCV. 4
9. Write a short note on laboratory diagnosis of CMV. How do you justify congenital toxoplasmosis in newborn? $2+2$
10. Write the principle of SRID test. What is Himalayan fantasy? $2+2$
11. Give a brief account on SLE and its diagnosis. $2+2$
12. State TAB vaccination and mention the consequences of TAB vaccination on WIDAL test. State briefly on antigenic diversity of *Salmonella typhi* and *Salmonella paratyphi A* serotypes. $2+2$

Group - C

Answer any *two* questions : $8 \times 2 = 16$

13. Describe the techniques employed in monoclonal antibody production with diagram. Differentiate between Denovo and Salvage pathways. $6+2$

(3)

14. Which host cell is the target for HIV invasion? Write the role of two co-receptors during the attack of host cells by HIV. Write briefly the procedure of Western blot during the detection of HIV infection along with its interpretation. 1+2+5
15. Write the principle, procedure and interpretation of Mantoux test. 2+4+2
16. Discuss the pathogenesis of RA by giving emphasis on immunological changes. Write the principle of RPR and FTA-abs tests. 5+3

[Internal Assessment - 10 marks]
