



PG CBCS
M.Sc. Semester-I Examination, 2023
MEDICAL LABORATORY TECHNOLOGY
PAPER: MLT 102
(HAEMATOLOGY AND SEROLOGY)

Full Marks: 40

Time: 2 Hours

The figures in the right-hand 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. What is pluripotent stem cell?
2. Write the application of histoplasma skin test
3. Why biotin-avidin is used in ELISA?
4. Define arneth count.
5. Differentiate leukemoid reaction from leukemia.
6. Mention the clinical manifestations of Multiple Myeloma.

GROUP-B

Answer any **FOUR** questions:

4×4=16

7. What is titre value? Write its significance. 2+2
8. Write the principle and procedure of Streptozyme test. 2+2
9. Draw a template of a slide used in WIDAL qualitative test with proper labelling.
Write the application of RPR test. 3+1
10. Write the importance of MHC-II.
11. Write the causes and consequences of thrombocytopenia.
12. Write the cause, clinical features and diagnosis of Von Willebrand disease.

GROUP-C

Answer any **TWO** questions:

8×2=16

13. State the principle of ELISA to detect the Dengue IgG. Write the procedure to perform this test. 3+5
14. Describe the principle of Mantoux test? How will you draw the inference from the Mantoux test? Briefly write note on "ToRCH panel test". 2+2+4
15. Elaborate the epigenetic regulation of hematopoiesis? Write the Pathological variations in different types of WBCs. 5+3
16. What is the role of BCR-ABL-I gene? Discuss briefly about JAK/STAT pathway. 4+4
