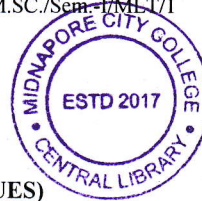


PG CBCS
M.Sc. Semester-I Examination, 2023
MEDICAL LABORATORY TECHNOLOGY
PAPER: MLT 104
(ADVANCE MEDICAL LABORATORY TECHNIQUES)



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 out of following: 2×4=8

1. What is the principle of electrophoresis?
2. Write any two application of SEM.
3. Name any one component used in HPLC column.
4. State the basic difference between rate zonal and isopynic centrifugation.
5. Write the name of any two enzymes used for labelling purpose in ELISA.
6. Write the function of SDS on PAGE.

GROUP-B

Answer any **FOUR** questions out of following: 4×4=16

7. State the principle of confocal microscope.
8. Write down the application of sonicator in biomedical science.
9. Describe the working principle of USG.
10. Differentiate between low speed centrifuge with ultracentrifuge.
11. Write the difference between stacking gel and separating gel.
12. Write the technique of micro-well coating by interested antibody.

GROUP-C

Answer any **TWO** questions out of following: 8×2=16

13. Why do three different pHs are used in SDS-PAGE? Write the function of tracking dye in agarose gel electrophoresis. What is Rf value? 4+2+2
14. Briefly describe the bridging PCR in next generation sequencing? Write the principle of 454 pyrosequencing. 4+4
15. Discuss different parts used in HPLC.
16. Describe the steps adopted for separation of biomolecules using 'Density gradient continuation'.
