

QP CODE: 403012

Reg. No:.....

**Final Year B.Sc MLT Degree Regular/Supplementary Examinations
February 2026
Histotechnology and Cytogenetics**

Time: 3 Hours

Total Marks: 100

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essay

(2x10=20)

1. Principles and theory of hematoxylin and eosin staining. Write notes on Hematoxylin. Define accentuator and accelerators. (5+3+2)
2. What is a microtome. Name types of microtome. Describe operation and specification of each type. (2+2+6)

Short notes

(10x5=50)

3. Chromosome analysis in blood and bone marrow.
4. Processing of tissue for electron microscopy.
5. Hand processing in histopathology.
6. Human sex chromosome.
7. Acid fast bacilli stain.
8. Klinefelter syndrome.
9. Enzyme histochemistry.
10. Uses of paraffin wax in histopathology.
11. Clearing agents used for tissue processing.
12. Use of silver stains in histopathology.

Answer briefly

(10x3=30)

13. Zenker's fluid.
14. Tissue tek 1 and 2 in histopathology.
15. Post chroming.
16. Formalin pigment.
17. Rake angle in microtomy.
18. Name one dehydrating agent used in tissue processing and write one merit and demerit.
19. Mention two uses of cryostat.
20. Schiff's reagent.
21. Secondary fixation.
22. Celloidin embedding.
