

**QP CODE: 403012**

**Reg. No:.....**

**Final Year B.Sc MLT Degree Regular/Supplementary Examinations  
March 2025**

**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. What is karyotyping. What are its uses in Pathology. Discuss in detail the Banding Techniques. (2+3+5)
2. Discuss about the various types of Haematoxylin used in histopathology. Add a note on the advantages and disadvantages of them. (5+5)

**Short notes**

**(10x5=50)**

3. Describe various special stains used to demonstrate carbohydrates.
4. Fluorescent insitu hybridization technique.
5. Mounting medias in histopathology.
6. Frozen section and its application.
7. Safety measures in Histopathology lab.
8. Automation in histopathology.
9. Sharpening of microtome knife.
10. Down syndrome.
11. Formalin fixative.
12. Demonstration of Barr body.

**Answer briefly**

**(10x3=30)**

13. Mercury containing fixatives.
14. Vacuum embedding.
15. Progressive staining.
16. Name two additives used in Paraffin wax and its use.
17. What is Bluing
18. Freeze drying.
19. L mould
20. Mordants.
21. Rotary microtome.
22. Floaters in histopathology.

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