

**QP CODE: 403012**

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

**Final Year B.Sc MLT Degree Supplementary Examinations  
August 2023  
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 a cryostat. Discuss the principle, uses, operation and care of a cryostat (3+7)
2. What is a fixative. Classify fixatives. Write in detail about formalin fixatives (2+3+5)

**Short notes**

**(10x5=50)**

3. Microwave processing in histopathology
4. Quality control in histopathology lab
5. Banding techniques
6. Water bath in histopathology
7. Special stains for demonstration of connective tissue
8. Sharpening of knife
9. Demonstration of lepra bacilli in tissues
10. Celloidin embedding
11. Rotary microtome
12. Advantages and disadvantages of different hematoxylin

**Answer briefly**

**(10x3=30)**

13. Paraffin wax additives
14. Demonstration of Barr body
15. Metachromatic stains
16. Clearance angle
17. Schiffs reagent
18. Secondary fixation
19. Blueing
20. Philadelphia chromosome
21. Tissue Tek
22. Mention two clearing agents with its advantages and disadvantages

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