

**QP CODE: 403012**

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

**Final Year B.Sc MLT Degree Supplementary Examinations  
October 2022**

**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. Discuss the principles and theory of staining. Mention briefly the classification of dyes. Describe the uses of Mordant, accentuators and accelerators in routine staining. (3+4+3)
2. Discuss different types of microtomes. Write the advantages and disadvantages of each. Describe the parts and operation of any one in detail. (2+3+5)

**Short notes**

**(10x5=50)**

3. Embedding medias
4. Fluorescent in Situ Hybridization (FISH)
5. Tissue processing for electron microscopy
6. Quality control in the histopathology laboratory
7. Scanning electron microscopy
8. Automation in histopathology
9. Decalcifying agents
10. Fixatives in histopathology
11. Knife sharpening technique
12. Vacuum embedding

**Answer briefly**

**(10x3=30)**

13. Mounting fluids used in museum
14. Demonstration of iron in tissues
15. Grouping of human chromosomes
16. Demonstration of Barr body
17. Demonstration of amyloid
18. Demonstration of fungi in tissues
19. Types of moulds in paraffin blocking
20. Adhesives in histopathology
21. Removal of formation pigment from sections
22. Knife angles

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