

**QP CODE: 403012**

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

**Final Year B.Sc MLT Degree Supplementary Examinations, April 2015**

**HISTOTECHNOLOGY AND CYTOGENETICS**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all Questions.
- Draw Diagrams wherever necessary.

**Essay**

**(2x10=20)**

1. Discuss the principles and theory of staining. Mention briefly the classification of dyes. List the uses of mordant, accentuators and accelerators in staining.  
(3+5+2=10)
2. Discuss the principles, procedure and applications of immuno histochemistry  
(3+4+3=10)

**Short notes**

**(10x5=50)**

3. Processing of bone biopsies
4. Fixatives in histopathology
5. Immunofluorescent techniques in histopathology
6. Chromosomal changes seen in cancers
7. Decalcification
8. Banding techniques
9. Metaphase preparation from blood samples
10. Scanning electron microscopy
11. Structural abnormalities in chromosomes
12. Fluorescent in situ hybridization

**Answer briefly**

**(10x3=30)**

13. Grouping of human chromosomes
14. Freezing microtome
15. Adhesives in histopathology
16. Philadelphia chromosome
17. Clearing agents
18. Turner's syndrome
19. Demonstration of amyloid
20. Demonstration of mycobacteria in tissues
21. Utility of deeper sections in histopathology
22. Bone marrow culture

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