SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH (A DEEMED TO BE UNIVERSITY)

B.Sc. Medical Laboratory Technology Third Year Semester-V February 2020 Examination

Time: 2.30 Hrs. [Max. Marks: 80]

SUBJECT: PATHOLOGY - I

Q.P Code : J5051

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

LONG ESSAY 2X10=20Marks

- 1. What is frozen section? Describe the cryostat technique. Add a note on uses and care of cryostat.
- 2. What are the different steps in tissue processing? What is clearing? Enumerate the advantages and disadvantages of clearing agents.

SHORT ESSAY (Answer any six)

6X5=30Marks

- 3. Give examples for alum hematoxylin. Mention the steps in Hematoxylin and eosin staining.
- 4. What is decalcification? Mention different decalcifying agents and methods to detect end point of decalcification.
- 5. What is the principle and uses of dark ground microscopy?
- 6. Give five faults and their remedies in paraffin sectioning on microtome.
- 7. What is the principle and uses of reticulin staining?
- 8. What is microphotography? Give its applications of it in laboratories.
- 9. Describe the methods of disposal of laboratory waste
- 10. Write about maintenance of important records in the laboratory.

SHORT ANSWERS (Answer any Ten)

10X3=30Marks

- 11. Name three uses of electron microscopy.
- 12. What is stropping? Mention two abrasive powders.
- 13. Mention six PAS positive substances.
- 14. Mention different types of Eosins.
- 15. Composition of Bouin's fixative
- 16. Mention different methods of removal of formalin pigment
- 17. Mention different types of mountants used in museum.
- 18. Name three special stains used for staining connective tissue.
- 19. Name one special stain used for a) Amyloid b) Glycogen.
- 20. Why is anhydrous copper sulphate placed in final alcohol?
- 21. What is clearance angle?
- 22. How to take care of microscope?

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Time: 2.30 Hrs. [Max. Marks: 80]

SUBJECT: PATHOLOGY - II

Q.P Code: J5052

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

LONG ESSAY 2X10=20Marks

- 1. What are the methods of collection of samples for cytological examinations? Describe in detail all the steps in preparation and staining of cervical smear.
- 2. Describe preparation, principle and staining technique of Papinicoloau stain.

SHORT ESSAY (Answer any six)

6X5=30Marks

- 3. Discuss various techniques in respiratory system sample collections.
- 4. Describe cytological features of Radiation induced changes on PAP smears.
- 5. Discuss different methods of cell block preparation.
- 6. Describe the changes of CSF in Tuberculous meningitis.
- 7. Describe the Fixatives used in cytology.
- 8. What is Xanthochromia? List the causes.
- 9. Discuss in detail the cytology of Gastrointestinal system.
- 10. Describe microscopy of urinary sediments. Write a note on urinary casts.

SHORT ANSWERS (Answer any Ten)

10X3=30Marks

- 11. Mention three body fluids.
- 12. Principle of Geimsa stain.
- 13. Name three cytological stains.
- 14. Mention the phases of normal menstrual cycle.
- 15. List three differences between transudate and exudates.
- 16. Name three benign conditions of Female genital tract.
- 17. List three differences between benign and malignant cells.
- 18. Name three special stains used in FNAC.
- 19. Draw a neat labeled diagram of respiratory epithelium.
- 20. Name three organisms seen in cervical pap smear.
- 21. Shorr stain.
- 22. Definition of Exfoliative cytology.

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B.Sc. Medical Laboratory Technology Third Year Semester-V February 2020 Examination

Time: 2.30 Hrs. [Max. Marks: 80]

SUBJECT: PATHOLOGY - III

Q.P Code : J5053

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

LONG ESSAY $2 \times 10 = 20 \text{Marks}$

1. Describe steps of culture of bone marrow for genetic analysis. Mention 6 uses of genetic analysis.

2. List types of blood components. Write in details about the method of separation of blood component.

SHORT ESSAY (Answer any six)

 $6 \times 5 = 30 Marks$

- 3. Cytologic features of colloid goiter.
- 4. Describe steps of comb test.
- 5. Describe steps of IHC procedure.
- 6. Write in details about the criteria of donor selection.
- 7. Classify transfusion reaction. Mention the clinical features of transfusion reaction.
- 8. Describe various screening methods for infective material in donated blood.
- 9. Bombay blood group.
- 10. Describe method of karyotypic analysis.

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

- 11. Describe various vacutainers used in haematology.
- 12. Mention three types of transfusion reaction.
- 13. If patient blood group is 'O' positive., list the antigen and antibody in his blood.
- 14. Define Secondary antibody in IHC.
- 15. Causes for positive Direct comb test.
- 16. List three banding technique in chromosome.
- 17. List three advantage of slide method of blood grouping.
- 18. Name three transfusion transmitted disease.
- 19. Name three chromosomal genetic disorders.
- 20. In Xq22.9, which each alphabet and member represent.
- 21. Name three blood grouping system.
- 22. What is an euploidy.

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