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



B.Sc. Allied Health Sciences Second Year (Semester-V) September 2022 Examination B.Sc. Medical Laboratory Technology (MLT)

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. Write different classification of fixatives. Add a note on formalin fixative. Mention two methods of removal of formalin pigment from tissue section.
- 2. What is frozen section? Describe the cryostat technique. Add a note on uses and care of cryostat.

## **SHORT ESSAY** (Answer any six)

6X5=30Marks

- 3. Describe the principal and uses of Periodic acid Schiff stain
- 4. Describe the principal and uses of electron microscopy
- 5. Write a note on biomedical waste management.
- 6. What is dehydration? Write in detail about dehydrating agents.
- 7. What is microphotography? Mention its applications in laboratories.
- 8. What are the types of microtomes? Mention different types of microtome knives.
- 9. What is mordant? Give examples of hematoxylin with mordant.
- 10. What is de-calcification? List the factors affecting decalcification and methods to detect end point decalcification.

## SHORT ANSWERS (Answer any Ten)

10X3=30Marks

- 11 Name three mounting media.
- 12. Moulds for embedding
- 13. Two processes of haematoxylin ripening?
- 14. What is honing and stropping?
- 15. Write the composition of Bouins fixative
- 16. What are the uses of reticulin stain?
- 17. List three uses of computer in pathology.
- 18. What are the records to be maintained in histopathology?
- 19. Causes and remedy for scores or lines running vertically in tissue sections.
- 20. What is serial sections? Name an indication for serial sectioning.
- 21. List 3 uses of PAS stain.
- 22. Special stains to demonstrate a) Amyloid b) Nervous tissue c) connective tissue.



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

Q.P Code: J5052

SUBJECT: PATHOLOGY - II

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 cytological difference between benign and malignant lesions.
- 2. Mention the source of cerebrospinal fluid (CSF) sample, indications and contraindications of Lumbar puncture. Discuss the CSF changes in various types of meningitis.

## **SHORT ESSAY** (Answer any six)

6X5=30Marks

- 3. Describe the principle, procedure and interpretation of ZN stain.
- 4. Describe the morphology of various organisms detected in PAP smears
- 5. What are the qualities of ideal fixatives? List few cytological fixatives
- 6. Discuss various techniques in respiratory system sample collections.
- 7. Describe microscopy of urinary sediment. Write a note on urinary casts
- 8. What is Xanthochromia? List the causes
- 9. Discuss various techniques in cell block preparation.
- 10. Describe the principle and staining technique of Papinicoloau stain.

### **SHORT ANSWERS** (Answer any Ten)

10X3=30Marks

- 11. Cytology of normal endometrium
- 12. Mention three body fluids
- 13. Name three benign conditions of Female genital tract.
- 14. Draw a neat diagram of respiratory epithelium
- 15. What is Ayre's spatula
- 16. What is Cytospray
- 17. Name the parts of gastrointestinal system.
- 18. Mention 3 advantages of Fine Needle Aspiration cytology
- 19. Mention three methods of urine collection
- 20. What are Charcot leyden crystals.
- 21. Mention the phases of normal menstrual cycle
- 22. Name three methods of sample collection in respiratory tract lesions



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[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

2X10=20Marks

- 1. Describe normal histology of breast. Write steps involved in fine needle aspiration of breast lump.
- 2. List types of blood group. Write in details about the criteria of donor selection.

## SHORT ESSAY (Answer any six)

6X5=30Marks

- 3. Cytologic features of pleomorphic adenoma
- 4. Sex chromatin
- 5. Describe direct coombs test in detail
- 6. Describe steps of culture of bone marrow cells for genetic analysis
- 7. Describe cytological features of reactive lymphadenitis
- 8. Describe normal cytology of thyroid.
- 9. Describe steps of component separation
- 10. Describe uses of cytocentrifugation

### SHORT ANSWERS (Answer any Ten)

10X3=30Marks

- 11. Describe various vacutainers used in haematology
- 12. Mention three types of transfusion reaction
- 13. If patient blood group is 'A' positive., list the antigen and antibody in his blood
- 14. Define primary antibody in IHC
- 15. Causes for positive indirect comb test
- 16. List three banding technique in chromosome
- 17. List three disadvantage of tube method of blood grouping
- 18. Name three transfusion transmitted disease
- 19. Name three benign breast lesion
- 20. In Xq22.9, which each alphabet and member represent.
- 21. Name three transfusion transmitted disease
- 22. Name three indication for fnac

