

B.Sc. Allied Health Sciences Third Year (Semester-V)

March 2021 Examination.

B.Sc. Medical Laboratory Technology (MLT)

Time : 2.30 Hrs.

[Max. Marks : 80]

BIOCHEMISTRY

Q.P Code : AHS-105

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

1. Describe the role of kidney in the regulation of Blood PH.
2. Define Jaundice. Explain the classification of Jaundice.

SHORT ESSAY (Answer any Six)

6 X 5 = 30 Marks

3. Absorption and transport of iron.
4. Name the kidney function tests. Explain any one test.
5. Metabolic acidosis.
6. Pentagastrin stimulation test.
7. Regulation of calcium levels in blood.
8. Bilirubin metabolism.
9. Electrolyte balance.
10. Anion gap.

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

11. Hemosiderosis.
12. Blood buffers.
13. Achlorhydria.
14. Accuracy.
15. Biological reference ranges of AST and ALT.
16. Define free and total acidity of gastric juice.
17. Obstructive jaundice.
18. Normal serum levels of sodium and potassium.
19. Causes of respiratory acidosis.
20. Alkaline phosphatase.
21. Functions of gastric juice.
22. Enzymes used to assess liver function.



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

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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 are the different steps in tissue processing. Mention the factors affecting tissue processing. Describe in detail about clearing agents.
2. What is decalcification? Describe the factors affecting decalcification and various methods of decalcification.

SHORT ESSAY (Answer any six)

6X5=30Marks

3. Describe the principle and uses of Periodic Acid Schiff stain.
4. What are the important records to be maintained in a laboratory.
5. What are the different types of microtome. What are the advantages and disadvantages of Rotatory microtome?
6. What is microphotography and give five application of it in laboratories.
7. What is the principle and uses of scanning electron microscope?
8. Write a note on disposal of waste.
9. Briefly describe mounting of museum specimens in general.
10. What is mordant ? Describe in detail the steps of H& E staining.

SHORT ANSWERS (Answer any Ten)

10X3=30Marks

11. Progressive staining.
12. Name one special stains each for a) Mycobacteria tuberculosis b) Fat c) Glycogen.
13. List three uses of polarized light microscope.
14. Name three mounting media used after staining.
15. Name three autofluorescent tissues.
16. Name three agents used for ripening of hematoxylin.
17. Mention three methods for removal of formalin pigment.
18. Mention the uses and disadvantages of gluteraldehyde.
19. What are the different types of Eosin.
20. List six items required for paraffin section cutting.
21. Name different types of nuclear fixatives
22. List three uses of reticulin stain.



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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. Mention the source of cerebrospinal fluid (CSF) sample, indications and contraindications of Lumbar puncture. Discuss difference between various inflammatory lesions in Central nervous system.

SHORT ESSAY (Answer any six)

6X5=30Marks

3. Fixatives used in cytology
4. Significance of Hormonal cytology.
5. Describe cytological features of Radiation induced changes on PAP smears.
6. Principle and preparation of PAP stain.
7. Discuss various techniques in respiratory system sample collections.
8. Describe microscopy of urine sediment. Write a note on urinary casts
9. Discuss cytological difference between Benign and Malignant cell
10. Discuss different methods of cell block preparation

SHORT ANSWERS (Answer any Ten)

10X3=30Marks

11. Mention three benign conditions in Gastrointestinal system.
12. Definition of Exfoliative cytology.
13. Cytology of normal endometrium
14. Mention three body fluids
15. Principle of Geimsa stain
16. Name the parts of gastrointestinal system.
17. Name three benign conditions of Female genital tract
18. Mention the phases of normal menstrual cycle
19. Draw a neat labeled diagram of respiratory epithelium
20. Name three organisms seen in cervical pap smear.
21. What is Shorr stain
22. Name three cytological stains.



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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 thyroid. Write cytological features of colloid goiter.
2. List types of blood components. Write in details about the method of separation of blood component.

SHORT ESSAY (Answer any six)

6X5=30Marks

3. Cytologic features of reactive lymphadenitis
4. Describe steps of culture of bone marrow for genetic analysis
5. Describe indirect coombs test in detail
6. Describe different methods of bleeding donor
7. Write in detail about the criteria of donor selection
8. Describe normal cytology of breast.
9. Describe steps off I HC procedure
10. Describe Bombay blood group

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 '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 aneuploidy

