



SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

B.Sc. Allied Health Sciences Third Year Semester-VI

September 2023 Examination

B.Sc. Medical Laboratory Technology

Time : 2.30 Hrs.

Paper-I

[Max. Marks : 80]

Subject: Applied Aspects of Biochemistry

Q.P Code : J6060

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

1. Describe Colorimeter with respect to Principle, instrumentation, procedure, Application, advantages & disadvantages
2. Classify Renal function tests. Explain the laboratory tests to assess glomerular function

SHORT ESSAY (Answer any six)

6 X 5 = 30 Marks

3. List 5 acute phase proteins. Mention their functions.
4. Describe different electrophoresis bands of separation of lipoproteins.
5. Describe different biochemical indices used in diabetes mellitus.
6. Describe the Principles of Medical Ethics.
7. Write any five difference between Internal Quality Control and External Quality Control
8. Describe the principles & procedure of auditing.
9. Describe the importance of automation in clinical biochemistry laboratory
10. List Pre-analytical errors, Analytical and Post analytical errors.

SHORT ANSWERS (Answer any ten)

10 X 3 = 30 Marks

11. What is Light's Criteria?
12. What is Microalbuminuria? Write its importance.
13. What is laboratory accreditation and its importance?
14. Define Accuracy and Precision.
15. Define GLP.
16. List any three enzyme assays of liver function test.
17. Define Mean & Mode.
18. Name 3 acute phase proteins
19. What is Urea clearance test? Write its significance.
20. Define quality control. Mention the various errors in the laboratory.
21. Mention the advantage of spectrophotometer compared to colorimeter
22. Give the Biological reference range of (1) Total Bilirubin (2) Total Proteins (3) Total cholesterol

B.Sc. Allied Health Sciences Third Year Semester-VI

September- 2023 Examination

B.Sc. Medical Laboratory Technology

Time : 2.30 Hrs.

Paper-II

[Max. Marks : 80]

Subject: Applied aspects of Microbiology

Q.P Code : J6070

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

Long Essay

2 X 10 = 20 Marks

1. Enumerate any four sexually transmitted diseases. Describe the clinical features and laboratory diagnosis of Syphilis (2+4+4)
2. Classify sterilization .Describe in detail the working principle of autoclave with a diagram. List the sterilization controls used in the autoclave (4+4+2)

Short Essay (Answer any Six)

6 X 5 = 30 Marks

3. Describe the clinical manifestations and laboratory diagnosis of Hook worm infection.(2.5+2.5)
4. Describe the laboratory diagnosis of Enteric fever.
5. Describe the specimen collection and laboratory diagnosis of Leprosy.(2+3)
6. Describe the laboratory diagnosis of urinary tract infection
7. Describe the clinical manifestations and laboratory diagnosis of suppurative infections caused by *Streptococcus pyogenes*. (3+2)
8. Describe the laboratory diagnosis of Rabies.
9. Describe the laboratory diagnosis of Pneumococci.
10. Describe the laboratory diagnosis of Human immunodeficiency Virus.

Short Answers (Answer any Ten)

10 X 3 = 30 Marks

11. Enumerate the laboratory acquired infections.
12. Enumerate the antibiotic susceptibility testing methods
13. Describe the principle, advantages and disadvantages of VDRL test.(1+2+2)
14. Describe the applications of Polymerase chain reaction
15. Enumerate three mosquito borne infections
16. Enumerate the microbial agents causing Diarrhea.
17. Enumerate the motile gram negative bacilli.
18. Enumerate 3 live attenuated Vaccines.
19. Enumerate the steps to be followed in the collection of blood for blood culture.
20. Describe the mechanism of action and uses of alcohols.(1+2)
21. Five moments of Hand Hygiene.
22. Describe the prophylaxis of Hepatitis B virus infection.

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

September-2023 Examination

B.Sc. Medical Laboratory technology (MLT)

Time : 2.30 Hrs.

[Max. Marks : 80]

Subject : Applied Aspects of Pathology

Q.P Code : J6080

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

Long Essay

2 X 10 = 20 Marks

1. Mention the source of cerebrospinal fluid (CSF) sample. Discuss CSF cytology in Inflammatory, Benign and Malignant diseases of the central nervous system.
2. Define Hypersensitivity reactions. Describe different types of hypersensitivity reactions with examples.

Short Essay (Answer any Six)

6 X 5 = 30 Marks

3. Define biomedical waste management. Discuss their safe management of it.
4. Describe pathogenesis of Type 1 diabetes mellitus.
5. Describe urine analysis by strip method.
6. What is Xanthochromia? List the causes.
7. Discuss in brief functions of T and B lymphocytes.
8. Define occult blood. Describe the test to detect it.
9. Cytology of pleural effusion in benign and malignant conditions
10. Describe Coomb's test.

Short Answers (Answer any Ten)

10 X 3 = 30 Marks

11. What are crystals? Name the conditions associated with urinary crystals
12. What is Autoimmune disease.
13. Name 3 different modes of urine sample collections
14. Name the parts of Antigen.
15. What is arthus reactions.
16. Name the antibodies present in thyroiditis.
17. List three differences between transudate and exudates
18. Mention three acute transfusion reactions.
19. What is erythroblastosis foetalis.
20. Name the principle of Ziehl Neelsen stain
21. Charcot leyden crystals.
22. Mention three body fluids