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

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

April 2023Examination B.Sc. Medical Laboratory Technology

[Max. Marks : 80]

Paper-I

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

- 1. Describe in detail principle, types, procedure & application of ELISA
- 2. Define Mean, Median, Mode, Standard Deviation (SD) & Coefficient of variation (% CV). Calculate Mean, Median, Mode, Standard Deviation (SD) & Coefficient of variation (% CV) for the given set of numbers 19,23, 16, 21, 27,24,20, 16, 28

SHORT ESSAY (Answer any six)

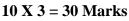
- 3. Describe the similarities, advantage, disadvantage between the colorimeter & spectrophotometer.
- 4. Describe different methods of analysis of total proteins.
- 5. Define quality control and Explain different types of quality control.
- Radio Immuno assay(RIA)- Principle, application & disadvantage. 6.
- Describe different electrophoresis bands of separation of lipoproteins. 7.
- Define clearance test. List the various clearance test and explain any one clearance test. 8.
- Define Lipoproteins & classify Lipoproteins with their functions. 9.
- Define the Mean, Median, Standard Deviation (SD), %CV & Total Allowable Error (TAE) 10.

SHORT ANSWERS (Answer any ten)

- 11 List any 3 devices used in POCT.
- 12 Write three Applications of ELISA.
- 13 Write the principle of paper chromatography.
- 14 List any two methods of protein purification.
- Write the reference range for (1) Albumin (2) Globulin (3) A:G Ratio 15
- 16 Define sensitivity and specificity
- 17 Write the principle of Vandenberg reaction.
- Biochemical changes in hypothyroidism. 18
- 19 What is Urea clearance test? Write its significance.
- 20 Define Accuracy & Precision.
- 21 What is Total allowable error?
- 22 Name the 3 Ketone bodies.

$6 \ge 5 = 30$ Marks

2 X 10 = 20 Marks



Time : 2.30 Hrs.

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

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

Examination

B.Sc. Medical Laboratory Technology

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

- sterilization. Classify the sterilization methods and discuss in detail about 1. Define Autoclave (2+4+4)
- 2. List the causes and common organisms causing urinary tract infection (UTI) and their laboratory diagnosis.(3+2+5)

SHORT ESSAY (Answer any six)

- 3. Blood spill management.
- 4. Culture media Classification with examples
- 5. Laboratory diagnosis of Malaria
- 6. PCR and its application
- 7. Agglutination Principle with examples
- 8. Cold sterilization
- 9. ELISA Principle and applications
- 10. Laboratory diagnosis of Tuberculosis.

SHORT ANSWERS (Answer any ten)

- 11. Draw a labelled diagram of ova of Trichuris trichura
- 12. Mention 3 Rapid card tests
- 13. Name 3 gram negative bacilli.
- 14. Name 3 anaerobic organisms.
- 15. Name 3 organisms causing skin and soft tissue infections
- 16. Name 2 acid fast bacilli.
- 17. Name 3 modes of transmission of HIV
- 18. Define selective media with examples
- 19. Name any three standard precautions
- 20. Name 4 water borne pathogens.
- 21. Five moments of hand hygiene.
- 22. Safe injection Practices.

 $6 \ge 5 = 30$ Marks

10 X 3 = 30 Marks

2 X 10 = 20 Marks

Time : 2.30 Hrs.

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH (A DEEMED TO BE UNIVERSITY) **B.Sc. Allied Health Sciences Third Year Semester-VI**

April 2023 Examination

B.Sc. Medical Laboratory Technology Paper-III

[Max. Marks : 80]

Subject: Applied aspects of Pathology Q.P Code : J6080

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

LONG ESSAY

Time : 2.30 Hrs.

- 1. Mention the source of cerebrospinal fluid (CSF) sample, indications and contraindications of Lumbar puncture. Discuss the CSF changes in various types of meningitis.
- 2. Define Hypersensitivity reactions. Describe different types of hypersensitivity reactions with examples

SHORT ESSAY (Answer any six)

- 3. Cytology of pleural effusion in benign and malignant conditions
- 4. Define biomedical waste management. Discuss their safe management of it.
- 5. Describe the principle, procedure and interpretation of ZN stain.
- 6. Describe Coomb's test.
- 7. Describe transfusion reactions
- 8. Define benzidine test. Describe the procedure.
- 9. Describe microscopy of urinary sediment. Write a note on urinary casts
- 10. Describe pathogenesis of type 1 diabetes mellitus.

SHORT ANSWERS (Answer any ten)

- 11. What are crystals? Name the conditions associated with urinary crystals
- 12. Mention three reagents present in urine strip.
- 13. Mention three antigen antibody mediated diseases.
- 14. What is Autoimmune disease.
- 15. List three differences between transudate and exudates
- 16. Mention three renal function tests.
- 17. Name the antibodies present in thyroiditis.
- 18. Name the method for pregnancy test.
- 19. Name 3 colour coding for biomedical waste management.
- 20. Name 3 different modes of urine sample collections
- 21. What is serum sickness.
- 22. Name the parts of Antigen.

 $2 \ge 10 = 20 \text{ Marks}$

6 X 5 = 30 Marks

10 X 3 = 30 Marks

