SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

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

July/August 2019 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 $2 \times 10 = 20 \text{ Marks}$

1. Describe in detail the automation of analytical process in the Clinical Biochemistry laboratory.

2. Describe thyroid function tests in detail.

SHORT ESSAY (Answer any six)

6 X 5 = 30 Marks

- 3. Explain the Principles of Medical Ethics.
- 4. Give an account on Principle, different types and applications of Electrophoresis.
- 5. Define Lipoproteins & classify Lipoproteins with their functions.
- 6. Mention the advantages and applications of ELISA.
- 7. Describe the Preparation & interpretation of L J Chart.
- 8. Describe the similarities, advantage, disadvantage between the colorimeter & spectrophotometer
- 9. List 5 transport functions of plasma proteins. Mention their functions.
- 10. List any 3 biochemical parameters analysed in pleural fluid and its clinical importance

SHORT ANSWERS (Answer any ten)

10 X 3 = 30 Marks

- 11. Microalbuminuria
- 12. Define Preanalytical errors and mention any two causes
- 13. Define clearance test. Name the various clearance test
- 14. Colorimeter: principle & application
- 15. Biochemical changes in hyperthyroidism.
- 16. Light's Criteria
- 17. Name 3 stains used to stain lipoproteins
- 18. Vandenbergh test: Principle & importance
- 19. Name the 3 ketone bodies.
- 20. Write the different types of audit in a laboratory.
- 21. Define Mean & Median
- 22. Write the reference range for (1) Serum Urea (2) Serum Creatinine (3) Serum Uric acid

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

July / August 2019 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 $2 \times 10 = 20 \text{ Marks}$

1. List the organisms causing Pneumonia. Describe the laboratory diagnosis of *Streptococcus pneumoniae*. (3+2+5)

2. List the causes and common organisms causing Urinary tract infection (UTI) and laboratory diagnosis of UTI (3+2+5)

SHORT ESSAY (Answer any six)

 $6 \times 5 = 30 \text{ Marks}$

- 3. ELISA Principle and applications
- 4. Blood culture
- 5. Safe injection practices
- 6. Laboratory diagnosis of HIV.
- 7. Culture media Classification with examples.
- 8. Antibiotic susceptibility testing
- 9. Laboratory diagnosis of Tuberculosis
- 10. Grams stain Steps

SHORT ANSWERS (Answer any ten)

10 X 3 = 30 Marks

- 11. Transport media with examples.
- 12. Name 3 motile organisms.
- 13. Draw a labelled diagram of ova of hook worm.
- 14. Mention 3 uses of Sodium hypochlorite.
- 15. Peripheral blood smear for Malaria parasite.
- 16. Mention the positive and negative controls used for QC of Blood agar.
- 17. Name 3 capsulated organisms.
- 18. Steps of Hand Hygiene.
- 19. Name 3 organisms causing skin and soft tissue infections.
- 20. Name 3 Opportunistic parasites causing diarrhea.
- 21. Name 3 anaerobic culture methods.
- 22. Name 3 organisms causing dysentery.

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

July / August 2019 Examination

B.Sc. Medical Laboratory Technology

Time: 2.30 Hrs. Paper-III [Max. Marks: 80]

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

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 different modes of sample collections, transport, preservation and processing of body fluids.
- 2. Define Hypersensitivity reactions. Describe different types of hypersensitivity reactions with examples

SHORT ESSAY (Answer any six)

6 X 5 = 30 Marks

- 3. Discuss CSF cytology in meningitis.
- 4. Define biomedical waste management. Discuss their safe management of it.
- 5. Describe collection, preparation and staining of sputum for cytology.
- 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 pernicious anemia.

SHORT ANSWERS (Answer any ten)

10 X 3 = 30 Marks

- 11. What are crystals? Name the conditions associated with urinary crystals
- 12. Define hypersensitivity reaction.
- 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 3 different modes of urine sample collections
- 18. What is serum sickness.
- 19. Name the parts of Antigen.
- 20. Name the antibodies present in thyroiditis.
- 21. Name three hemolytic anemia.
- 22. Name 3 colour coding for biomedical waste management.

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