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

B.Sc. Allied Health Sciences First Year (Semester-II) September 2021 Examination

Time: 2.30 Hrs.

[Max. Marks: 80]

SUBJECT: BIOCHEMISTRY

Q.P Code: J2030

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

LONG ESSAY

2 X 10 = 20 Marks

1. Write the principle, types, components, maintenance and uses of centrifuges.

What are the different hospital wastes generated? Describe the segregation and disposal of biomedical waste from the laboratory.

SHORT ESSAY (Answer any Six)

6X 5 = 30 Marks

3. What is the molarity of the final solution when 75 mL of 6.0 M KCl solution is diluted to 150 mL?

4. Discuss storage and handling dangerous chemicals with safety measures.

5. Explain sample collection, preservation and transportation of blood, urine and other body fluids.

6. Define Conventional units and S.I. Units. Write S.I. Units for any five parameters.

Define Dilutions. Explain the preparation of 0.1N HCI.

8. What is Quality control? Write about different types of Quality control.

9. Write the use, care and maintenance of water bath.

10. Explain about specimen collection and mention the pre-analytical errors.

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

11. Define an indicator. Explain the mechanism of dissociation of an indicator.

12. Name 3 anticoagulants used for blood collection

13. Define buffer and pH

14. Precautions while using pipettes.

15. Define atomic weight and equivalent weight.

Define buffer and mention its applications.

17. Standard solution.

18. Define Conventional units and S.I. Units. Write S.I. Units for any two parameters.

19. Accuracy and precision.

20. Explain solute, solvent and solution with examples

21. What are the precautions to be taken for Arterial blood collection?

22. Write the calculation of mean and standard deviation.

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Durk

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B.Sc. Allied Health Sciences First Year (Semester-II) September 2021 Examination

Time: 2.30 Hrs.

[Max. Marks: 80]

SUBJECT: MICROBIOLOGY

Q.P Code : J2040

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

LONG ESSAY

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

- 1.Define Hypersensitivity. Describe the mechanism, clinical features and clinical importance of anaphylaxis.
- Map the lesions caused by Salmonella typhi in humans. Describe mode of transmission, clinical manifestation and sample collection in typhoid fever

SHORT ESSAY (Answer any Six)

6 X 5 = 30 Marks

- 3. Describe the clinical features, mode of transmission and sample collection in cryptococcal infection.
- 4. Describe hand hygiene technique and its clinical importance.
- 5. Describe the principle, articles sterilized and controls used in Hot air oven.
- 6. Describe clinical features, mode of transmission and sample collection in Kala azar.
- 7. Describe disinfection of OT.
- 8. Describe the biomedical waste management
- 9. Describe clinical features, mode of transmission and sample collection in candida infection.
- 10. Draw a neat labeled diagram of Bacteria, Enumerate the antibiotics and their target sites.

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

- 11. Name three killed vaccines.
- 12. Define nosocomial infection with examples.
- 13. Draw a neat labeled diagram of the structure of Human immuno Deficiency Virus (HIV).
- 14. Enumerate three important properties of an antigen.
- 15. Enumerate three disinfectants used in hospitals. .
- 16. Name three opportunistic fungal infections.
- 17. Enumerate three modes of transmission of Hepatitis B virus.
- 18. Name three Arbovirus infections in India.
- 19. Enlist three differences between humoral and cell mediated immune response.
- Define cross infection with one example.
- 21. Describe three lesions caused by Treponema pallidum.
- 22. Name three bacteria causing respiratory infections.



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Time: 2.30 Hrs.

[Max. Marks : 80]

SUBJECT: PATHOLOGY

Q.P Code: J2050

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

LONG ESSAY

2 X 10 = 20 Marks

- Define Neoplasia. Discuss the differences between benign and malignant tumors with neat labeled diagram.
- Describe cellular and vascular events in acute inflammation. Mention various tests in inflammation.

SHORT ESSAY (Answer any Six)

6X 5 = 30 Marks

- 3. Discuss various cellular adaptations
- 4. Describe pathogenesis and stages of pneumonia
- 5. Discuss pathogenesis and types of urinary stones
- 6. What are the different methods of blood collection modes
- 7. Pathogenesis and laboratory investigations of Iron deficiency anemia
- 8. Discuss physical examination of urine. Brief note on Benedict test
- 9. Discuss steps in tissue processing
- 10. Write the uses of Fine Needle Aspiration cytology

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

- 11. Draw the diagram of peptic ulcer
- 12. List 6 causes for leucocytosis
- 13. List 3 complications of atherosclerosis
- 14. Mentions stages of ESR
- 15. List 3 blood grouping systems
- 16. Mention 3 causes for meningitis
- 17. What is edema
- 18. What are the stages of shock
- 19. Mention any 3 lesions of breast
- 20. List 3 causes for Urinary tract infection
- 21. List 3 infectious diseases
- 22. Define metaplasia