



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

B.Sc. Allied Health Sciences Second Year (Semester- IV)

October 2023 Examination

B.Sc. Cardiac Perfusion Technology (CPT)

Time: 2.30 Hrs.

[Max. Marks:80]

Applied Pathology & Microbiology
(Use Separate answer booklet for Section A & B)
(SECTION A)

APPLIED PATHOLOGY (40 Marks)

Q.P Code: K4745

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

Long Essay

1 X 10 = 10 Marks

1. Define End stage renal disease, Describe the etiology, effects and role of dialysis and renal transplantation in its management.

Short Essay

3 X 5 = 15 Marks

2. Describe the etiology, pathogenesis, morphology and clinical features of Pulmonary congestion.
3. Obstructive uropathy – causes and clinical manifestations
4. Write the pathogenesis of Pneumoconiosis and write in brief about asbestosis

Short Answers

5 X 3 = 15 Marks

5. Describe briefly chronic bronchitis
6. Write 3 points to differentiate restrictive from obstructive lung diseases
7. List out 2 criteria for chronic renal failure
8. Write the histopathological findings in silicosis.
9. Causes of obstructive uropathy

Sec-B

Applied Microbiology(40 Marks)

Q.P Code:K4746

LONG ESSAY

1 X 10 = 10 Marks

1. Define the terms Sterilization and Disinfection. Classify Disinfectants and describe the working principle, uses, advantages, and disadvantages of Ethylene Oxide Sterilization. Add a note on its sterilization control.

SHORT ESSAY

3 X 5 = 15 Marks

2. Describe Spaulding's classification and mention the appropriate methods of disinfection.
3. Describe different methods of cold sterilisation with examples.
4. Describe the types, uses, advantages, and disadvantages of aldehydes used in hospitals.

SHORT ANSWERS

5 X 3 = 15 Marks

5. Mention the disinfectants used to disinfect the bed railing, floor and trolley.
6. List three Alcoholic disinfectants used in hospital and their uses.
7. List three methods of sampling for Microbiological surveillance of OT.
8. Mention six important steps to prevent bedsores in ICU.
9. Mention three articles sterilised by Hot air oven.



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B.Sc. Cardiac Perfusion Technology

Time : 2.30 Hrs.

[Max. Marks : 80]

Medicine Relevant to Cardiac Perfusion Technology

Q.P Code : K4760

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

1. Explain chronic renal failure with its pathophysiology
2. What are the physiological changes occurring in pregnant women? What are the fetal response to CPB?

SHORT ESSAY

6 X 5 = 30 Marks

3. What are the uterine and fetal monitoring during CPB.
4. Pathogenesis of chronic kidney disease.
5. What are the divisions of nervous system? What are the characteristics of Autonomic nervous system?
6. What is the age-related physiological changes of heart.
7. Contraindications and complications of Renal transplantation
8. How is paediatric patient different from adult with regard to CPB.

SHORT ANSWERS

10 X 3 = 30 Marks

9. Risk factors for AKD
10. Adrenergic receptors
11. Write note on structural changes occurring in blood vessels in aged
12. Advantages of Haemodialysis over Peritoneal dialysis
13. Write note on principle of dialysis
14. Priming in infant and paediatric patient in CPB
15. Priming in paediatric patient
16. Obesity and its complication
17. Branches of Autonomic nervous system
18. Pre and post ganglionic fibres of sympathetic and parasympathetic nervous system

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