



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

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

September 2022 Examination

B.Sc. Anesthesia & Operation Theatre Technology

Time: 3 Hrs.

Paper – I

[Max. Marks: 100]

Applied Pathology & Microbiology

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

(Use separate answer booklet for Section A & B)

Section – A

Applied Pathology (50 Marks)

Q.P Code : J4135

LONG ESSAY

2 X 10 = 20 Marks

1. Define Atherosclerosis. Discuss the risk factors, pathogenesis and morphology of atherosclerosis.
2. Define acute renal failure (ARF) and list the causes, pathogenesis, and effects of acute renal failure.

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

3. Pathogenesis of ischemic heart disease
4. Classify aneurysm. Draw neat labelled diagram for different types of aneurysm
5. Classify cardiomyopathy. Describe clinical features and laboratory investigations of cardiomyopathy
6. Describe etiopathogenesis of ischemic heart disease
7. Obstructive uropathy - causes and clinical manifestation.

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

8. Name three clinical symptoms of IHD.
9. Classify hypertension
10. Give three conditions causing left to right shunt.
11. Tetralogy of fallot
12. Name 2 criteria for chronic renal failure
13. Saccular aneurysm
14. Name three uses of renal dialysis

Section – B

Applied Microbiology (50 Marks)

Q.P Code : J4136

(Use separate answer booklet for Section-B)

LONG ESSAY

2 X 10 = 20 Marks

1. List the viruses that can cause infections in Health care workers. Describe in detail about Hepatitis B infection and add a note on prophylaxis. (3+3+4).
2. Enumerate the pathogens that cause respiratory infections. Describe in detail pathogenesis and laboratory diagnosis of tuberculosis. (3+3+4)

SHORT ESSAY (Answer any three)

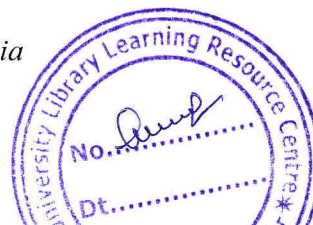
3 X 5 = 15 Marks

3. Laboratory diagnosis of Hepatitis C
4. Biomedical waste management.
5. Laboratory diagnosis of Cholera
6. Disinfection of operation theatre.
7. Describe the preventive measures to avoid transmission of blood borne infections among Health care workers.

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

8. Name three Personal protective equipments
9. Mention the steps in the management of blood spills
10. Draw a labelled diagram of trophozoite and cyst of *Giardia lamblia*
11. Name four water borne pathogens
12. Polio vaccines
13. List three disinfectants used in health care settings.
14. Name three infections caused by herpes simplex virus.



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Time : 3 Hrs.

Paper – II

[Max. Marks : 100]

Introduction to OT Technology

Q.P Code : J4140

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

LONG ESSAY

2 X 10 = 20 Marks

- 1 Name different types of surgical positions. Describe Trendelenburg position and its concerns
- 2 Describe surgical table setting for laparoscopic cholecystectomy

Short essay (Any ten)

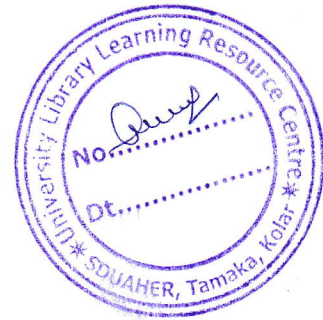
10 X 5 = 50 Marks

- 3 Fowlers position
- 4 Describe intraoperative ECG monitoring
- 5 Methods of confirming position of endotracheal tube
- 6 Complications of hypothermia and precautions taken to avoid hypothermia
- 7 Precautions to be taken to avoid needle stick injuries
- 8 Radiation exposure in operation theatre
- 9 Cleaning and disinfection of operation theatre after a case of HBsAg positive
- 10 Complications following day care anaesthesia
- 11 Treatment and disposal of biomedical wastes
- 12 Precautions taken before blood transfusion
- 13 Surgical drapes
- 14 Sterilizing anaesthesia circuits

Short Answers (Any ten)

10 X 3 = 30 Marks

- 15 Uses of pulse oximeter
- 16 Invasive blood pressure monitoring
- 17 Phases of capnogram
- 18 Intraoperative awareness monitoring
- 19 Monitors used in postoperative care
- 20 Personal protective equipment
- 21 Fire triangle
- 22 List of procedures suitable for day care surgery
- 23 Ryle's tube
- 24 How is I&D done in OT
- 25 Uses of infusion pump
- 26 Name different types of endoscopes





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B.Sc. Allied Health Sciences Second Year (Semester-IV)
September 2022 Examination
B.Sc. Anesthesia & Operation Theatre Technology

Time : 2 Hrs.

[Max. Marks : 40]

SUBJECT : PHARMACOLOGY

Q.P Code : J4150

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

Long essay

1 × 10 = 10 Marks

1. a. Classify betalactam antibiotics 4
- b. Explain mechanism of action, uses and adverse effects of penicillin 2+2+2

Short essay (Answer any three)

3 × 5 = 15 Marks

2. Explain mechanism of action, uses and adverse effects of frusemide (1.5+2+1.5)
3. Explain mechanism of action, uses and adverse effects of ranitidine (2+2+1)
4. List the uses and adverse effects of prednisolone (2.5+2.5)
5. Explain mechanism of action, uses and adverse effects of nitroglycerine (1.5+2+1.5)

Short answer (Answer any five)

5 × 3 = 15 Marks

6. Mention **three** disinfectants and write **three** uses
7. Explain mechanism of action and write **one** use of metformin
8. Explain mechanism of action and write **one** use of salbutamol
9. Mention **three** antihistaminics
10. Mention **three** drugs used in anaphylactic shock
11. Mention **three** uses of gentamicin





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B.Sc. Anesthesia & Operation Theatre Technology

Time : 2.30 Hrs.

[Max. Marks : 80]

PAPER-IV

Medicine relevant to OT Technology

Q.P Code : J4160

Your answers should be specific to the questions asked.

Long Essay

2X10=20 Marks

1. Define and classify shock. Describe in detail about hypovolemic shock
2. Risk factors, clinical features, management and complication of cerebrovascular accident

Short Essay (Answer any Six)

6X5=30 Marks

3. Classify intravenous fluids. Write in briefly about normal saline
4. Metabolic acidosis
5. Briefly note on dialysis
6. Causes, Clinical features of liver cell failure
7. Indication and technique of chest compression in new born
8. Pathophysiology and clinical manifestations of chronic kidney disease
9. Renal function test
10. How do you arrange the anaesthesia table for a 3 years old child coming for inguinal hernia repair surgery

Short Answers (Answer any ten)

10X3=30 Marks

11. composition of intracellular and extracellular fluids
12. Fasting guidelines for a pediatric patient
13. Management of hyperkalemia
14. Risk factors for stroke
15. APGAR score
16. Dobutamine
17. Ambu bag
18. Post operative pain management
19. Causes of cirrhosis
20. Normal values of serum electrolyte
21. Composition of ringer lactate
22. Parts of laryngoscope

