



Sri Devaraj Urs ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)

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

September- 2025 Examination

B.Sc. Anesthesia and Operation theatre Technology

Time : 2.30 Hrs.

[Max. Marks : 80]

Applied Pathology & Microbiology

Section – A

Applied Pathology (40 Marks)

Q.P Code : K4135

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

(Use separate answer booklet for Section A & B)

Long Essay

1 X 10 = 10 Marks

1. Define ischemic heart disease. What are the risk factors, types and pathophysiology of IHD

Short Essay

3 X 5 = 15 Marks

- 2 List out the renal calculi in detail
- 3 Define hypertension. note on risk factor and tupes of hypertension
- 4 Discuss about cardiac hypertrophy ,types

Short Answers

5 X 3 = 15 Marks

5. Write a note on prosthetic valves
- 6 List out 2 criteria for chronic renal failure
7. Classify aneurysm
8. Causes of obstructive uropathy
9. Describe the components (morphology) of atherosclerotic plaque

Section – B

Applied Microbiology (40 Marks)

Q.P Code : K4136

(Use separate answer booklet for Section-B)

LONG ESSAY

1 X 10 = 10 Marks

1. Enumerate the pathogens Blood borne infections. Describe the clinical features and laboratory diagnosis of Hepatitis B.(2+4+4)

SHORT ESSAY

3 X 5 = 15 Marks

2. Describe the laboratory diagnosis of Cholera
3. Describe the clinical features and laboratory diagnosis of Pneumococcal pneumoniae (2.5+2.5)
4. What is the mode of transmission and laboratory diagnosis of Hepatitis C virus.(2.5+2.5)

SHORT ANSWERS

5 X 3 = 15 Marks

5. Draw a labelled diagram of trophozoite and cyst of *Giardia lamblia*.
6. Mention the three measures to prevent food borne infections.
7. Mention the three uses of Aldehydes.
8. Describe the laboratory diagnosis of round worm.
9. How is Hepatitis B virus infection prevented?



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B.Sc. Anesthesia and Operation theatre Technology

Time: 2 hrs 30 mins

[Max. Marks: 80]

Introduction to Anesthesia and Operation Theatre Technology

Q.P Code: K4140

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY QUESTIONS

(2X10=20)

1. Enumerate ten golden rules of anaesthesia in detail. Add a note on Minimum standards of anaesthesia.
2. What are the various components of anaesthesia machine? Write a note on the safety features of anaesthesia machine.

SHORT ESSAY QUESTIONS

(6X5=30)

3. Define (a) Intubation (b) Extubation. Add a note on reversal.
4. Precautions to be taken before, during and after transfusing blood to a patient.
5. Transcutaneous oxygen monitoring.
6. Write about disposal of waste in OT.
7. Define gas analysis and its types
8. Explain in detail about OT environment.

SHORT ANSWER QUESTIONS

(10X3=30)

9. Gas Manifold room
10. PPE
11. Define Premedication.
12. Surgical Hand wash.
13. Agents used for chemical disinfection
14. I-gel
15. Vaporizers
16. AMBU Bag.
17. Basic fire safety in OR
18. Pipelines

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B.Sc. Anesthesia and Operation theatre Technology

Time: 1Hr 30min.

[Max. Marks: 40]

Applied Pharmacology

Q.P Code: K4150

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY

1 X 10 = 10 Marks

1. Classify beta lactam Inhibitors. Explain mechanism of action, uses and adverse effects of Penicillin

SHORT ESSAY

3 X 5 = 15 Marks

2. Explain mechanism of action, uses and adverse effects of Amlodipine
3. Explain mechanism of action, uses and adverse effects of Ranitidine
4. Explain mechanism of action, uses and adverse effects of Metronidazole

SHORT ANSWERS

5 X 3 = 15 Marks

5. Mention three uses of Ceftriaxone
6. List three uses and adverse effects of Furosemide
7. Mention three anti Histamines
8. Explain Mechanism of action and uses of Salbutamol
9. Mention three antiseptics and write their uses

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B.Sc. Anesthesia and Operation Theatre Technology

Time: 2.30 Hrs.

[Max. Marks: 80]

Medicine Relevant to Anesthesia and Operation Theatre Technology

Q.P Code: K4160

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY QUESTIONS

2X10=20 Marks

1. Describe neonatal resuscitation in detail. What are the differences between pediatric and adult CPR?
2. What are isotonic, hypotonic and hypertonic IV fluids? Mention the uses and side effects of any two crystalloids and two colloids.

SHORT ESSAY QUESTIONS

6X5=30 Marks

3. Describe anaesthesia table arrangement for pediatric patient.
4. Epilepsy
5. Anaphylactic shock.
6. What are the risk factors, clinical features and treatment of IHD?
7. What are the signs and symptoms, investigations and management of CKD?
8. Hypovolemic Shock: Diagnosis and management.

SHORT ANSWER QUESTIONS

10X3=30 Marks

9. Pediatric AMBU bag.
10. Components of NS.
11. Sign and symptoms of Obstructive Shock.
12. Name three premedication drugs used for pediatric patients.
13. NPO guidelines.
14. Causes of epilepsy.
15. Pediatric laryngoscope.
16. Causes of Hypovolemia.
17. Causes of liver cirrhosis.
18. Metabolic acidosis.

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