

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

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

March 2022 Examination

B.Sc. Anesthesia & Operation Theatre Technology Paper – I

Time: 3 Hrs.

[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 : J3095

LONG ESSAY

2 X 10 = 20 Marks

1. Define etiopathogenesis, classification and clinical features of thalassemia
2. Define COPD. Describe etiopathogenesis, morphology of emphysema

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

3. Classify leukemia. Describe microscopic morphology of AML
4. Describe the etiopathogenesis of coal workers pneumoconiosis
5. Coagulation cascade
6. Write in detail the classification of anemia
7. Write etiopathogenesis of pleural effusion

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

8. Write three causes for neutrophilia
9. What three causes of eosinophilia
10. Write three causes for macrocytic anemia
11. What is leukemoid reaction
12. Write three function of WBC
13. Write three RBC indices
14. Write three complication of sickle cell anemia

Section – B

Applied Microbiology (50 Marks)

Q.P Code : J3096

(Use separate answer booklet for Section-B)

LONG ESSAY

2X10=20 Marks

1. Discuss briefly the common types of health care associated infections.
2. Define Sterilization. Classify the sterilization methods and discuss in detail about dry heat sterilization(2+3+5)

SHORT ESSAY (Answer any three)

3X5= 15 Marks

3. Spaulding's classification
4. Enumerate Phenolic disinfectants. Describe the mechanism of action and uses of Phenols.
5. Biomedical waste management
6. HEPA filters
7. OT sterilization

SHORT ANSWERS (Answer any five)

5X3= 15 Marks

8. Mention 3 bacteria causing nosocomial infection.
9. Prevention of catheter associated blood stream infections (any three measures).
10. Mention methods of testing disinfectants
11. What is Cold sterilization? give two examples.
12. Name three methods of sterilizing critical items
13. Five moments of hand hygiene
14. Uses of antiseptics.

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Paper-II

Introduction to OT Technology

Q.P Code : J3100

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

Long Essay

2X10=20 Marks

1. Classify local Anesthetics. Describe in detail about bupivacaine.
2. Draw a neat labelled diagram of LMA. Mention it's types. Enlist advantages, disadvantages, indications & contraindications of LMA

Short Essay (Any ten)

10X5=50 Marks

3. Describe in detail about sterilization by heat
4. Isoflurane
5. Ketamine
6. Sterilization of operation theatre
7. Candle filters
8. Tests for disinfection
9. Define minimum alveolar concentration. Mention MAC values & blood gas coefficient of anaesthetic gases.
10. Local Anaesthetic systemic toxicity.
11. Describe airway.
12. Oxygen delivering devices
13. Suture Materials
14. Color coding for segregation of biomedical wastes. Describe in detail.

Short Answers (Any ten)

10X3=30 Marks

15. Steam jacketed autoclave
16. Mention types of fluid filters
17. ETO Gas sterilization
18. Seitz filter
19. Flash Sterilization
20. Contents of Propofol
21. Mention types of disinfection
22. Physical agents of sterilization
23. Uses of dry heat sterilization
24. Dissociative anaesthesia
25. Classify Local Anaesthesia
26. Characteristics of ideal suture material



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Time: 2 Hrs.

[Max. Marks: 40]

PHARMACOLOGY

Q.P Code: J3110

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

Long essay

1 × 10 = 10 Marks

1. a. Classify adrenergic receptor blockers ----- 4
- b. Explain mechanism of action, uses and contraindications to propranolol -----1+3+2

Short essay (Answer any three)

3 × 5 = 15 Marks

2. Explain mechanism of action, uses and adverse effects of atropine (1+3+1)
3. List the advantages and disadvantages of oral route (2.5+2.5)
4. List the advantages and disadvantages of halothane (3+2)
5. Explain mechanism of action, uses and adverse effects of aspirin (1.5+2.5+1)

Short answer (Answer any five)

5 × 3 = 15 Marks

6. Mention **three** uses of morphine
7. Mention **three** skeletal muscle relaxants
8. Explain mechanism of action and mention **two** techniques for administration of lignocaine
9. Mention **three** crystalloids
10. Mention **three** uses of diazepam
11. Mention **three** uses of adrenaline



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Time : 2.30 Hrs.

[Max. Marks: 80]

PAPER-IV

Medicine relevant to OT Technology

Q.P Code: J3120

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

Long Essay

2X10=20 Marks

1. Define diabetes mellitus; discuss its classification, etiopathogenesis, perioperative complications and treatment
2. Define anemia. Write in detail about etiopathogenesis, perioperative complications and management of anemia

Short Essay (Any Six)

6X5=30 Marks

3. Diabetic ketoacidosis
4. JNC classification and risk factors of hypertension
5. Diagnosis and treatment of perioperative myocardial ischemia
6. Define COPD. Discuss its etiopathogenesis and clinical features.
7. Discuss etiopathogenesis and risk factors of bronchial asthma
8. Supine hypotension syndrome
9. Define and classify pregnancy induced hypertension. Mention its clinical features
10. Physiological changes in pregnancy

Short Answers (Any ten)

10X3=30 Marks

11. Treatment of hypoglycemia
12. Causes of perioperative hypertension
13. Complications of hypertension
14. Risk factors of ischemic heart disease
15. Classification of obesity
16. Hypertensive crisis
17. Define and classify COPD
18. Etiopathogenesis of bronchial asthma
19. Complications of PIH
20. Causes of anemia
21. Perioperative complications in elderly
22. Body mass index

