SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

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

September 2022 Examination

B.Sc. Anesthesia & Operation Theatre Technology

Time: 3 Hrs.

Paper – I

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

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

[Max. Marks: 100]

- 1. Describe the etiopathogenesis and classification of thalassemia
- 2. Define Pneumoconiosis. Describe etiopathogenesis, clinical feature and complications of silicosis

SHORT ESSAY (Answer any three)

 $3 \times 5 = 15 \text{ Marks}$

- 3. Classify anemia based on its etiological factors
- 4. Describe the blood picture in Chronic myeloid leukemia
- 5. Define COPD. Classify emphysema with a diagram
- 6. Write the steps in coagulation cascade
- 7. Describe pathogenesis and clinical features of pleural effusion

SHORT ANSWERS (Answer any five)

 $5 \times 3 = 15 \text{ Marks}$

- 8. Write three causes for lymphocytosis
- 9. Write three RBC causes for macrocytic anemia
- 10. What three test used to evaluate anemia
- 11. Name three granulocytes.
- 12. Write three test to evaluate clotting factors
- 13. Draw a microscopic diagram of asbestos body
- 14. What is Exudate?

Section - B

Applied Microbiology (50 Marks)

Q.P Code: J3096

(Use separate answer booklet for Section-B)

LONG ESSAY

2X10=20 Marks

- 1. Discuss the measures taken to control the infections in health care settings.
- 2. Define Sterilization. Classify the sterilization methods and discuss in detail about dry heat sterilization (2+2+6)

SHORT ESSAY. (Answer any three)

3X5=15Marks

- 3. Enumerate halogen disinfectants. Describe the mechanism of action and its uses
- 4. Microbiological Surveillance in OT
- 5. Methicillin Resistant Staphylococcus Aureus. (MRSA)
- 6. Gaseous sterilization
- 7. HEPA filters

SHORT ANSWERS (Answer any five)

5X3=15 Marks

- 8. Disinfection of patient care unit (Any three methods).
- 9. Ethyl alcohol.
- 10. Fumigation
- 11. Five moments of hand hygiene
- 12. Enumerate bacteria causing nosocomial infection.
- 13 Prevention of catheter associated blood stream infections (any three measures).
- 14. Mention methods of testing disinfectants



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B.Sc. Anesthesia & Operation Theatre Technology

[Max. Marks : 100]

Time: 3 Hrs.

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. Define sterilization. Describe in detail about sterilization by heat.
- 2. Mention various intravenous induction agents. Describe in detail about propofol

Short Essay (Any ten)

10X5=50 Marks

- 3. Chemical Sterilization
- 4. Sevoflurane
- 5. Oxygen therapy devices
- 6. Laryngeal mask airway
- 7. Local Anaesthetic systemic toxicity
- 8. Ketamine
- 9. Absorbable & Non-absorbable suture materials
- 10. Color coding for segregation of biomedical wastes. Describe in detail
- 11. Personal protective measures taken in operation theatre for surgery on a HIV positive patient
- 12. Microbial control methods of sterilization
- 13. Moist heat sterilization
- 14. Hydrogen peroxide

Short Answers (Any ten)

10X3=30 Marks

- 15. Mention types of autoclaving
- 16. Methods used in sterilizing non-critically contaminated equipments
- 17. Plasma gas sterilization
- 18. Biomedical wastes discarded in black bag
- 19. Neat labelled diagram of airway
- 20. Prolene
- 21. Uses of skin staples
- 22. Classify local anaesthetics
- 23. Types of suture materials with examples
- 24. Triad of general anaesthesia
- 25. Glutaraldehyde
- 26. Tyndalization



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

Time: 2 Hrs.

[Max. Marks: 40]

SUBJECT: PHARMACOLOGY

Q.P Code: J3110

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

Long essay

 $1 \times 10 = 10 \text{ Marks}$

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)

 $3 \times 5 = 15$ Marks

- 2. Mention **five** types of antagonism with examples (5)
- 3. List the advantages and disadvantages of halothane (2.5+2.5)
- 4. Explain mechanism of action, uses and adverse effects of pancuronium (2+1+2)
- 5. Explain mechanism of action, uses and adverse effects of aspirin (1.5+2.5+1)

Short answer (Answer any five)

 $5 \times 3 = 15$ Marks

- 6. Mention three uses of morphine
- 7. Explain mechanism of action and write two uses of neostigmine
- 8. Mention three techniques of lignocaine administration with type of surgery done
- 9. Mention two colloids and write one use
- 10. Explain three uses of clonidine
- 11. Mention three uses of diazepam



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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: J3120

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

Long Essay

2X10=20 Marks

- 1. Define Bronchial Asthma. Describe perioperative complications and treatment of bronchial asthma
- 2. Mention physiological changes in pregnancy. Describe anaesthetic management of emergency cesarean section

Short Essay (Any Six)

6X5=30 Marks

- 3. Define hypertension. Classify hypertension. Describe its complications.
- 4. Describe etiopathogenesis and treatment of diabetes mellitus.
- 5. Diabetic ketoacidosis
- 6. Supine hypotension syndrome
- 7. Diagnosis and treatment of perioperative myocardial ischemia
- 8. Classification and etiopathogenesis of obesity
- 9. Define chronic bronchitis. Describe pathophysiology of chronic bronchitis
- 10. Perioperative complications and management of anemia

Short Answers (Any ten)

10X3=30 Marks

- 11. Insulin
- 12. β Blockers
- 13. treatment of hypoglycemia
- 14. Complications of Diabetes Mellitus
- 15. Risk factors of obesity
- 16. Hypertensive crisis
- 17. Perioperative complications anticipated in elderly patients
- 18. Pathophysiology of pregnancy induced hypertension
- 19. Risk factors of bronchial asthma
- 20. Clinical features of anemia
- 21. Clinical features of pregnancy induced hypertension
- 22. Treatment of hypertension

