

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

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

September 2021 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: J3095

LONG ESSAY

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

- Define anemia. Describe the classification and clinical features of anemia.
- 2. Define COPD. Decribe etiopathogenesis, morphology and classification of emphysema

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

- Classify pneumoconiosis.
- 4. Describe laboratory finding and microscopic morphology of iron deficiency anemia
- 5. Describe the etiopathogenesis of sickle cell anemia
- 6. Coagulation cascade
- 7. Classify leucocyte, describe the morphology and function of leucocytes
- 8. Write etiopathogenesis of pleural effusion

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

- 9. Write three causes for neutrophilia
- 10. What three causes of microcytic hypochromic anemia
- 11. Write three causes for macrocytic anemia
- 12. What is leukemoid reaction
- 13. Write three test in evaluating clotting factor
- 14. Write three RBC indices
- 15. 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 briefly the measures taken to control the infections in health care settings.
- 2 .Define Sterilization. Classify the sterilization methods and discuss in detail about moist sterilization

SHORT ESSAY.(Answer any three)

3X5=15Mark

- 3. Microbiological surveillance in OT
- 4. Methicillin resistant Staphylococcus aureus. (MRSA)
- 5. Gaseous sterilization
- 6. Spaulding's classification
- 7. HEPA filters

SHORT ANSWERS (Answer any five)

5X3= 15 Marks

- 8. Five moments of hand hygiene
- 9. What is Cold sterilization? give two examples.
- 10 Name three methods of sterilizing critical items
- 11 Enumerate bacteria causing nosocomial infection.12 Mention methods of testing disinfectants
- 13. Uses of antiseptics

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[Max. Marks : 100]

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 & disinfection write in detail about sterilization of anaesthetic equipments.
- 2. Draw a neat labelled diagram of LMA. Mention indications & contraindications of LMA.

Short Essay (Any ten)

10X5=50 Marks

- Methods of testing the efficiency of autoclave.
- 4. Types of filters used in sterilization. Describe candle filters.
- Define minimum alveolar concentration. Mention MAC values & blood gas coefficients of anaesthetic gases.
- 6. Chemical sterilization.
- 7. Isoflurane.
- 8. Lignocaine.
- 9. Describe ET tube.
- 10. Describe devices used in Oxygen therapy.
- 11. Suture materials.
- 12. Thiopentone
- 13. Bier's Block
- 14. Classification of Biomedical Wastes

Short Answers (Any ten)

10X3=30 Marks

- 15. Sterilization by radiation
- 16. Methods used in sterilizing critically contaminated equipments
- 17. Vacuum filters.
- Define bacteriostatic, Bactericide, Sporicide
- 19. Inspissator.
- 20. Halothane hepatitis.
- 21. Classify local anaesthetic agents.
- 22. Types of suture materials with examples.
- 23. Guedel's Airway.
- 24. Foley's catheter.
- 25. Sharps disposal.
- 26. Diffusion hypoxia.

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B.Sc. Allied Health Sciences Second Year (Semester-III) September 2021 Examination

B.Sc. Anesthesia & Operation Theatre Technology

Time: 2 Hrs.

[Max. Marks: 40]

SUBJECT: PHARMACOLOGY

O.P Code: J3110

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

Long essay

 $1 \times 10 = 10$ Marks

1. a. Classify anticholinergic drugs

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b. Explain mechanism of action, uses and adverse effects of atropine

1+3+2

Short essay (Answer any three)

 $3 \times 5 = 15$ Marks

- 2. Mention five types of antagonism with examples (5)
- 3. Mention five drugs from different groups used as pre-anaesthetic medication and explain the reason (5)
- 4. Explain mechanism of action, uses and adverse effects of neostigmine (1.5+2.5+1)
- 5. Explain mechanism of action, uses and adverse effects of diazepam (2+2+1)

Short answer (Answer any five)

 $5 \times 3 = 15$ Marks

- 6. Define plasma half-life and bioavailability
- 7. Explain mechanism of action and write two uses of succinylcholine
- 8. Mention three techniques of lignocaine administration with type of surgery done
- Mention two crystalloids and write one use
- 10. Explain three inhalational anaesthetic agents
- 11. Explain mechanism of action and two uses of paracetamol

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Time: 2.30 Hrs.

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

[Max. Marks : 80]

- Define hypertension. Mention its classification, etiopathogensis, complications and treatment
- 2. Define and classify PIH. Describe perioperative complications and management of PIH

Short Essay (Any Six)

6X5=30 Marks

- 3. Define Diabetes mellitus. Describe its etiopathogensis
- 4. Diagnosis and treatment of perioperative myocardial ischemia
- Classification and etiopathogenesis of obesity
- Anatomical and physiological changes in elderly
- 7. Define COPD. Discuss its etiopathogesis and clinical features
- 8. Supine hypotension syndrome
- Physiological changes in pregnancy
- 10. Perioperative complications and management of anaemia

Short Answers (Any ten)

10X3=30 Marks

- 11. Insulin
- 12. Mention complications of Diabetes mellitus
- 13. Risk factors of ischemic heart disease
- 14. Classification of obesity
- 15. Hypertensive crisis
- 16. Risk factors of COPD
- 17. Clinical features of bronchial asthma
- 18. Etiopathogenesis of pregnancy induced hypertension
- 19. Classification of anemia
- 20. Parenteral therapy in treatment of anemia
- 21. Complications of PIH
- 22. Complications of hypertension