



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. Respiratory Care Technology

Paper – I

[Max. Marks:

Time: 3 Hrs.

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 :J4855

LONG ESSAY

2 X 10 = 20 Marks

1. Describe the etiopathogenesis, clinical features, stages and morphology of lung in lobar pneumonia
2. Classify renal diseases. Describe the etiopathogenesis, clinical features and morphology of minimal change disease

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

3. Describe the etiopathogenesis, clinical features and morphology of emphysema
4. Describe the etiopathogenesis, clinical features, laboratory findings and morphology of post streptococcal glomerulonephritis
5. Describe the etiopathogenesis, clinical features and morphology of pneumoconiosis
6. Describe the etiopathogenesis, clinical features and morphology of chronic pyelonephritis
7. Describe the etiopathogenesis, clinical features and morphology of hydronephrosis

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

8. List 03 causes of obstructive lung disease
9. Define pulmonary edema and list 02 causes
10. Draw a labelled diagram of histology of kidney
11. List the renal function tests with the normal reference ranges
12. List 06 causes of obstructive uropathy
13. List 06 causes of acute renal failure
14. Describe the findings in nephritic syndrome

Section – B

Applied Microbiology (50 Marks)

Q.P Code : J4856

(Use separate answer booklet for Section-B)

LONG ESSAY

2x10= 20marks

1. Define Central Sterile Supply Department. Enumerate four zones and describe the various flow of activities in Central Sterile Supply Department (2+2+6)
2. Define the terms Sterilization and Disinfection. Classify Disinfectants and Describe the working principle, uses, advantages, disadvantages of Ethylene Oxide Sterilization and add a note on its sterilization control (1+1+6+2)

SHORT ESSAYS (Answer any three).

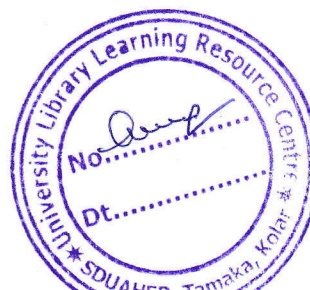
3X5=15 marks

3. Describe the working principle, uses of hot air oven and add a note on sterilization control
4. Define disinfectant and mention the types, uses, advantages and disadvantages of aldehydes used in hospitals
5. Describe different methods of cold sterilization with examples
6. Describe the care bundle approach to prevent Central line associated blood stream infection in ICU
7. Describe the transmission-based precautions in ICU

SHORT ANSWERS (Answer any five).

5X3=15 marks

8. Name three chemical sterilant
9. Mention the disinfectants used to disinfect bed railing, floor and trolley
10. Mention three articles sterilized by Autoclave
11. List three method of sampling for Microbiological surveillance of OT
12. List three source of infection in ICU
13. List three Alcohol disinfectants used in hospital and their uses
14. Mention the factors affecting the effectiveness of chemical disinfectants



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Time : 3 Hrs.

Paper – II

[Max. Marks : 100]

Introduction to Respiratory care Technology

Q.P Code : J4860

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

I. Long Essay

2x10=20 Marks

1. Describe in details about Nebulization Therapy and various Devices used in it.
2. Define Chest Physiotherapy, describe Indication, Contraindication, Complications and write about suctioning in detail.

II. Short Essay (Any 10)

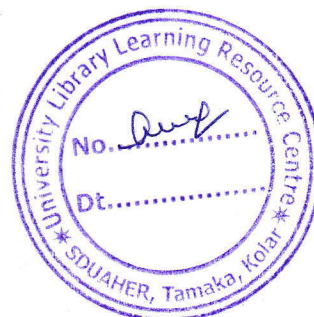
10x5=50 Marks

3. Draw a neat diagram of Spirogram. & Explain it.
4. Write About Bubble Humidifier and Passover Humidifier.
5. Mention the Indications and complications of oxygen therapy
6. Postural Drainage
7. Write about spacers and its advantages in Aerosol Therapy.
8. Comparison between MDI & DPI
9. Drugs used for Nebulization
10. Steps in Interpretation of Chest X ray
11. Initial patient assessments in respiratory therapy
12. Oxygen Concentrators
13. Colour Coding & Sizes for Medical Gas Cylinders
14. Write about Alarms & Safety Devices in Medical gas supply

III. Short answer (any 10)

10x3=30 marks

15. Venturi Mask
16. Disadvantages of Heated Humidifiers
17. Indications for ECG
18. Compressed gas Cylinders
19. Pediatric oxygen delivery devices
20. Air Compressors
21. HME filter
22. Importance of spirometry
23. Nasal cannula
24. Disadvantages of PMDI
25. Rationale of oxygen Therapy
26. Humidity Therapy





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B.Sc. Respiratory Care Technology

Paper - III

[Max. Marks : 40]

Time : 2 Hrs.

Subject : Applied Pharmacology

Q.P Code : J4870

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

LONG ESSAY

1 X 10 = 10 Marks

1. Classify corticosteroids. List the uses and adverse effects of corticosteroids (3+4+3)

SHORT ESSAY (Answer any Three)

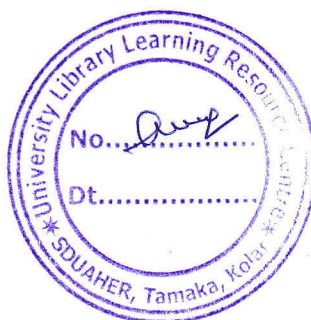
3X 5 = 15 Marks

2. Explain the mechanism of action, uses and adverse effects of succinylcholine (1.5+2+1.5)
3. Explain uses and adverse effects of diclofenac (2.5+2.5)
4. Enumerate the instructions to be given for the use of metered dose inhaler (MDI) (5)
5. Explain mechanism of action, uses and adverse effects of third generation ceftriaxone (1.5+2+1.5)

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

6. List three uses and three adverse effects of metronidazole
7. Mention three drugs different groups of used in cough and write the mechanism of action for each
8. Write three uses and adverse effects of cyclophosphamide
9. List the advantages of second generation antihistaminics over first generation antihistaminics
10. Mention three uses of naloxone
11. Mention three techniques of lignocaine administration with type of surgery done





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B.Sc. Respiratory Care Technology

Time : 2.30 Hrs.

[Max. Marks : 80]

PAPER-IV

Medicine Relevant to Respiratory care Technology

Q.P Code : J4880

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

I. Long Essay

2x10=20 Marks

1. Explain about Pneumonia along with its types, causes, Risk Factors, Diagnosis and management.
2. Describe Pulmonary Edema and its Management.

II. Short Essay (Any 6)

6x5=30 Marks

3. Write a short note on Occupational Lung Disorders
4. Explain the patient management of toxic inhalation.
5. Explain Pleural effusion along with risk factors & Pathophysiology.
6. Define Lung Abscess with its management
7. Define chest wall diseases and its characteristics.
8. Write a short note on thoracentesis .
9. Explain about pulmonary tuberculosis and its treatment .
10. Write about common fungal respiratory Infections.

III. Short answer (any 10)

10x3=30 marks

11. Common viral infections .
12. Name the causative agent of tropical eosinophilia and its management .
13. Management of ARDS .
14. Asbestosis.
15. Management of type -I respiratory failure .
16. Causes of extra pulmonary tuberculosis
17. Write about pleural diseases
18. Pathophysiology of exudative pleural effusion.
19. Explain the preventive Measures of toxic inhalation .
20. Pneumothorax types and its risk factors .
21. Kyphoscoliosis
22. Which condition causes barrel chest and funnel shaped chest.

