



**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. Respiratory Therapy (RCT)**

**Time: 2.30 Hrs.**

**[Max. Marks:80]**

**Applied Pathology & Microbiology**

**(Use Separate answer booklet for Section A & B)**

**(SECTION A)**

**APPLIED PATHOLOGY (40 Marks)**

**Q.P Code: K4835**

*Your answers should be specific to the questions asked.*

*Draw neat labelled diagrams wherever necessary.*

**Long Essay**

**1 X 10 = 10 Marks**

1. List the lesion in chronic obstructive pulmonary disease (COPD). Describe The etiopathogenesis, clinical features, morphology of Emphysema.

**Short Essay**

**3 X 5 = 15 Marks**

2. Define End stage renal disease, Describe the etiology, effects and role of dialysis and renal transplantation in its management.
3. Describe the etiology, pathogenesis, morphology and clinical features of pulmonary edema
4. Define chronic renal failure (CRF), write the stages, etiology and clinical features of CRF

**Short Answers**

**5 X 3 = 15 Marks**

5. Define chronic glomerulonephritis
6. Write 3 points to differentiate restrictive from obstructive lung diseases
7. List out 2 criteria for chronic renal failure
8. Write the histopathological findings in silicosis.
9. Causes of obstructive uropathy

**Sec-B**

**Applied Microbiology(40 Marks)**

**Q.P Code:K4836**

**LONG ESSAY**

**1 X 10 = 10 Marks**

1. Define Central Sterile Supply Department. Enumerate the objectives and describe the work practice of the Central Sterile Supply Department in detail.

**SHORT ESSAY**

**3 X 5 = 15 Marks**

2. Discuss the mechanism of action, advantages, disadvantages and sterilisation control of Ethylene oxide sterilisation.
3. Describe different methods of cold sterilisation with examples.
4. Classification of patient care units based on the risk involved and the appropriate methods of disinfection

**SHORT ANSWERS**

**5 X 3 = 15 Marks**

5. Name three types of patient care items in Spaulding's classification with examples.
6. Enumerate three uses of Glutaraldehyde.
7. Define and name two antiseptics.
8. Mention the holding temperature and time for sterilisation by hot air oven.
9. Name three types of healthcare-associated infections in the ICU.

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**B.Sc. Allied Health Sciences Second Year (Semester-IV)**

September 2025 Examination

**B.Sc. Respiratory Therapy**

**Time: 2 hrs 30mins**

**[Max. Marks: 80]**

**Introduction to Respiratory care Technology**

**Q.P Code: K4840**

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

## **LONG ESSAY**

**2 X 10 = 20 Marks**

1. Define Chest Physiotherapy, describe Indication, Contraindication, Complications and write about suctioning in detail.
2. Explain in detail about PFT and add a note on postbronchodilator tests in spirometry

## **SHORT ESSAY**

**6 X 5 = 30 Marks**

3. Add a note on Simple oxygen administration devices
4. Enumerate the Comparison between MDI & DPI.
5. Add a note on Postbronchodilator Tests
6. Draw a neat, labelled diagram of MDI and explain about indication, contraindication and optimal use of this device
7. Add a note on Gas Administration devices
8. Write a brief note on bedside pulmonary function test

## **SHORT ANSWERS**

**10 X 3 = 30 Marks**

9. Enumerate few restrictive disease
10. Write a short note on Venturi Mask
11. Write a short note on Importance of spirometry
12. Draw neat label of NRBM with its parts.
13. Define humidity therapy
14. Draw a neat diagram of ECG graph
15. Define oxygen therapy
16. Add a note on adult oxygen delivery devices
17. Define aerosol therapy
18. Name some obstructive diseases

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**B.Sc. Allied Health Sciences Second Year (Semester-IV)**  
**September 2025 Examination**  
**B.Sc. Respiratory Therapy**

**Time: 2.30 Hrs.**

**[Max. Marks: 80]**

**Medicine Relevant to Respiratory Care Technology**  
**Q.P Code: K4850**

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

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Describe the types, pathophysiology, clinical features, etiology, risk factors, Diagnosis and management of Pulmonary edema.
2. Describe the types, pathophysiology, clinical features, risk factors, Diagnosis and management of Toxic inhalation

**SHORT ESSAY**

**6 X 5 = 30 Marks**

3. Write about pathophysiology, signs and symptoms of Pulmonary tuberculosis
4. Enumerate Management of Pneumothorax
5. Explain the clinical features and risk factors of Atypical Pneumonia.
6. Brief notes on extra pulmonary tuberculosis
7. Define toxic inhalation and its management.
8. Write a brief note on Acute Lung Injury

**SHORT ANSWERS**

**10 X 3 = 30 Marks**

9. Add a note on Lung Cancer
10. Explain the preventive Measures for Hospital acquired Pneumonia.
11. Define Pneumothorax
12. Define VAP& enumerate its Bundle care.
13. Add a note on Management of ARDS
14. Enumerate the Symptoms of smoke Inhalation.
15. Name three bacteria that causes pneumonia
16. Define the role of respiratory therapist in the management of Ventilator associated Pneumonia
17. Write the signs and symptoms of smoke Inhalation.
18. Define the role of respiratory therapist in the management of pleural effusion

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