



SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

B.Sc. Allied Health Sciences Third Year Semester-V

March 2026 Examination

B.Sc. Respiratory Therapy

Time: 2.30 Hrs.

[Max. Marks: 80]

Respiratory Care Technology Clinical

Q.P Code: K5861

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

I. LONG ESSAY

2 X 10 = 20 Marks

1. Define pneumonia , classification , pathophysiology , signs and symptoms ,stages and its management
2. Define ARDS .write a note on causes ,clinical features and management of ARDS

II. SHORT ESSAY

6 X 5 = 30 Marks

3. Define cough , classification ,causes of cough , mechanism and treatment of cough
4. Advantages and disadvantages of ultrasonic nebulizer
5. Write a note on high flow oxygen devices
6. Define COPD and its type . Write a note on pathophysiology of COPD
7. Explain in detail about the diagnosis of PTB
8. Write the advantages and disadvantages of MDI with neat labelled diagram

III. SHORT ANSWERS

10 X 3 = 30 Marks

9. Define respiratory failure
10. Enumerate the complication of aerosol therapy
11. List the causes of hemoptysis
12. Write a note on Brownian diffusion effect
13. Write a note on small volume nebulizer
14. Define bronchial asthma
15. Describe the clinical signs of hypoxemia
16. Write a note on venture mask
17. List the types of humidifier
18. Enumerate the pathophysiology of Acute Lung Injury

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B.Sc. Allied Health Sciences Third Year Semester-V

March/April 2026 Examination

B.Sc. Respiratory Therapy

Time: 2.30 Hrs.

[Max. Marks: 80]

Respiratory Care Technology Applied

Q.P Code: K5862

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

I. LONG ESSAY

2 X 10 = 20 Marks

1. Write in detail about the Management of MV based on Arterial blood gas.
2. Write in detail about Adaptive Support Ventilation

II. SHORT ESSAY

6 X 5 = 30 Marks

3. Add a note on pressure control mode.
4. Explain in detail about Artificial airway care.
5. Add a note on Nutritional assessment.
6. Explain in detail about Phase variables.
7. Write a note on Troubleshoot low pressure alarms.
8. Explain Diffusion defect.

III. SHORT ANSWERS

10 X 3 = 30 Marks

9. Technique used to confirm ET placement
10. a) Compensatory formula for respiratory acidosis and respiratory alkalosis
b) Compensatory formula for metabolic acidosis and metabolic alkalosis
11. Define lung compliance and the time constant
12. List the Strategies to improve oxygenation
13. List the difference between SIMV and PSV mode.
14. Complication of PEEP
15. Condition that may cause hypotension
16. Describe in detail about PRVC
17. Define physiological deadspace
18. What is AUTO PEEP

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B.Sc. Allied Health Sciences Third Year Semester-V

March/April 2026 Examination

B.Sc. Respiratory Therapy

Time: 2.30 Hrs.

[Max. Marks: 80]

Respiratory Care Technology Advanced

Q.P Code: K5863

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

I. LONG ESSAY

2 X 10 = 20 Marks

1. A 62 year-old woman with a history of diabetes and a long smoking history presents to the emergency department with worsening shortness of breath. On auscultation of the chest there are widespread crackles and you notice moderate ankle edema. ABG shows:
pH: 7.20 pO₂: 66.75 pCO₂: 47 HCO₃: 17 BE: -8
 - What does the ABG show?
 - How will be the ventilator settings and how will you wean the patient?
2. Add a note on initial ventilator settings, indication and contraindication of mechanical ventilation.

II. SHORT ESSAY

6 X 5 = 30 Marks

3. Classify modes of mechanical ventilation
4. Write a note on ECMO
5. Common causes of high and Low pressure alarm
6. List the patient condition that hinders successful weaning
7. Write the compensation of respiratory disorder
8. Indication and contraindication for non-invasive ventilation

III. SHORT ANSWERS

10 X 3 = 30 Marks

9. Types of surfactant
10. what are the causes of high Anion gap
11. Write about barotrauma
12. Factors that may contribute to extubation failure
13. List the causes of SBT failure
14. Write a note on Partial pressure of carbon dioxide with normal and abnormal range
15. Define Respiratory rate. Causes of tachypnea
16. what are the components of ABG
17. Classify neonates based on gestation
18. What is RSBI index

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