Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Respiratory Care Technology Examination – 06-May-2026

Time: Three Hours **Max. Marks: 100 Marks**

Clinical care respiratory care technology Paper - I (RS2)
Q.P. CODE: 2929

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

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Describe manual resuscitator with a diagram. Mention the indications for its use and its complications
2. Describe the clinical applications, methods of placement and discontinuance of a three column chest tube and drainage system
3. Discuss about O2 delivery devices in detail

SHORT ESSAYS (Answer any Ten) **10 x 5 = 50 Marks**

4. Describe common clinical features seen in OSA
5. Explain the pathophysiology of pulmonary tuberculosis
6. Describe the techniques of flexible bronchoscopy
7. Chest x-ray
8. Explain how pulmonary emboli alter lung and cardiac function together
9. Endotracheal tube
10. Advantages and disadvantages of tracheostomy
11. Pulse oximeter
12. Indications and hazards of aerosol therapy
13. Ultrasonic nebulizers
14. Normal and abnormal breath sounds
15. Care of long-term airway and its complications

SHORT ANSWERS (Answer any Ten) **10 x 3 = 30 Marks**

16. X-ray finding in Pneumothorax
17. Name four medication are commonly used for bronchospasm
18. Differentiate between hypoxia and hypercapnia
19. Oxygen toxicity
20. Pleural Effusion
21. Hemoptysis
22. Recognition of cardiac arrest
23. Symptoms and causes of bronchial asthma
24. Anti-Tb drugs
25. Symptoms of toxic inhalation
26. X-ray findings in ARDS
27. Abnormal findings in capnography

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III Year B. Sc. Respiratory Care Technology Degree Examination – 08-May-2026

Time: Three Hours **Max. Marks:100**

Applied Respiratory Care Technology -II (RS2)

Q.P. CODE: 2930

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

LONG ESSAYS (Answer any two) **2 x 10 = 20 Marks**

1. Weaning and extubation
2. Home mechanical ventilation
3. Discuss about the management of mechanical ventilation

SHORT ESSAYS (Answer any ten) **10 x 5 = 50 Marks**

4. Neuromuscular blocking agent
5. Aerosol therapy
6. Hemodynamic monitoring
7. Endotracheal suctioning
8. End tidal capnography
9. Intubation complications
10. Initial ventilator setting
11. Steroids
12. 6-minute walk test
13. Brochiectasis
14. Care of the ventilation circuit
15. Auscultation of the chest

SHORT ANSWERS (Answer any ten) **10 x 3 = 30 Marks**

16. Surfactant
17. Speaking valves
18. Hyponatremia
19. Adrenaline
20. Metabolic alkalosis
21. Pressure Control Ventilation (PCV)
22. Septic shock
23. Supraglottic airways
24. Vital signs
25. Fever
26. Lung compliance
27. Parts of ET tube

Rajiv Gandhi University of Health Sciences, Karnataka

Third Year B.Sc. Respiratory Care Technology Degree Examination – 08-May-2026

Time: Three Hours **Max. Marks: 100**

RESPIRATORY CARE TECHNOLOGY – Applied – Paper-II (RS-3)

Q.P. CODE: 3362

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

LONG ESSAYS (Second Question Choice) **2 x 10 = 20 Marks**

1. Describe the Chatburn's classification of mechanical ventilation
2. Define Berlin definition of ARDS and explain the lung-protective strategies in ARDS
   OR
   Effect of positive pressure ventilation on the pulmonary system

SHORT ESSAYS (Question No 5 & 10 choice) **10 x 5 = 50 Marks**

3. Ventilator – Associated events
4. spontaneous breathing trial on pressure support mode
5. Write a note on evaluation of clinical criteria for weaning
   OR
   Management of COPD patients with Hypercapnic respiratory failure
6. Write a note compliance and airway resistance
7. Auto-Peep detection using waveform
8. Indications and complication of long-term mechanical ventilation
9. Describe the airway management in emergency department
10. Pressure control ventilation
    OR
    Airway Pressure Release Ventilation (APRV)
11. Positive end expiratory pressure
12. Describe the management of traumatic brain injury patients

SHORT ANSWER **10 x 3 = 30 Marks**

13. Components of inflation pressure
14. Complications of artificial airway
15. Optimal PEEP and inflation point
16. Extubation readiness criteria
17. Mention the causes of patient in sudden distress during mechanical ventilation
18. Extubation failure
19. Adaptive suppot ventilation
20. Cardiogenic shock
21. Brain protective ventilation strategy
22. What are the drugs used during airway stabilization?

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III Year B.Sc. Respiratory Technology Degree Examination – 11-May-2026

Time: Three Hours **Max. Marks: 100**

RESPIRATORY CARE TECHNOLOGY – Advanced – Paper-III (RS-3)

Q.P. CODE: 3363

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

LONG ESSAYS (Second Question Choice) **2 x 10 = 20 Marks**

1. Describe indications and types of surfactant therapy. Discuss in detail techniques of surfactant delivery
2. Discuss resuscitation of a newborn baby including initial steps of newborn care, airway management and post resuscitation care

   OR

   Discuss oxygen therapy in newborn, delivery devices and complications

SHORT ESSAYS (Question No 5 & 10 choice) **10 x 5 = 50 Marks**

3. Indications of HFNC
4. Capillary blood gas sampling
5. Transient tachypnea of the newborn

   OR

   Cleft palate
6. Bronchopulmonary dysplasia
7. Examination and assessment of the neonates
8. Bubble CPAP
9. Fetal development
10. **Congenital Heart diseases**

    OR

    Interfaces for non-invasive ventilation in neonates
11. Oxygen toxicity
12. Nitric Oxide Therapy

SHORT ANSWER **10 x 3 = 30 Marks**

13. ECMO types
14. Indications of high frequency ventilation
15. APGAR scoring
16. Pulse oximetry
17. Contraindications of NIV
18. Pediatric asthma
19. Indications of central venous catheterization
20. Croup
21. Examples of artificial surfactants
22. Complications of hypoxia in the newborn

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