2SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

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

April 2024 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.

LONG ESSAY **2 X 10 = 20 Marks**

1. Define pulmonary tuberculosis, pathophysiology ,etiology ,clinical features ,investigation and management
2. Write in detail about toxic inhalation injury

SHORT ESSAY **6 X 5 = 30 Marks**

3. Add a note on low flow oxygen device
4. Explain in detail about small volume nebulizer along with labelled diagram
5. Define pneumonia .Briefly explain about hospital acquired pneumonia
6. Define hemoptysis . Explain about its type
7. Add a note on respiratory failure,types and causes
8. Define COPD and its type . Write a note on pathophysiology of COPD

SHORT ANSWERS **10 X 3 = 30 Marks**

9. List the types cough mention its causes.
10. Write a note on aerosol deposition in the lung
11. Draw a neat labelled diagram of ultrasonic nebulizer
12. List the high flow oxygen devices and its fio2
13. Mention the difference between the active and passive humidifier
14. Define acute rhinitis
15. Write a note on sedimentation of aerosol
16. Describe the etiology of cough
17. Write a note on nasal cannula
18. Describe the pathophysiology of pneumonia.

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

April 2024 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.

LONG ESSAY **2 X 10 = 20 Marks**

1. Explain in detail about pressure support ventilation
2. Explain in detail about the strategies to improve oxygenation

SHORT ESSAY **6 X 5 = 30 Marks**

3. Write a note on Potassium abnormalities
4. Add a note on Intrapulmonary shunting
5. Write a note on Permissive hypercapnia
6. Explain detail about Ventilator circuit care
7. Add a note on Phase variable of A/C and SIMV mode
8. Write a note on Metabolic acidosis

SHORT ANSWERS **10 X 3 = 30 Marks**

9. Techniques used to confirm endotracheal tube placement
10. Indication and complication of Airway pressure release ventilation (APRV) mode.
11. Hypoventilation
12. Causes of metabolic acidosis
13. Phase variable of PSV mode
14. Clinical feature of ventilation failure
15. List the causes of metabolic acidosis
16. Compensation and management of Respiratory acidosis
17. Causes of extracellular deficiency
18. Hyperkalemia.

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

April 2024 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.

LONG ESSAY **2 X 10 = 20 Marks**

1. 1. A 21 year-old woman presents feeling acutely lightheaded and short of breath. She has her Final university exams next week.

   pH: 7.48 pO2: 104 pCO2: 26.25 HCO3: 22 BE: +2

   Other values within normal range

   i) What does this ABG show
   ii) What is the differential diagnosis?
2. Describe the goals , indication and complication of neonatal mechanical ventilation

SHORT ESSAY **6 X 5 = 30 Marks**

3. Goals and indication of mechanical ventilation
4. Detail notes on lung volume and capacities
5. Write a note on acidosis and alkalosis
6. Alarm settings in ventilators
7. Initial ventilatory setting
8. List equipment required for endotracheal intubation

SHORT ANSWERS **10 X 3 = 30 Marks**

9. Define weaning failure
10. Clinical objectives of mechanical ventilation
11. Prone positioning in paediatric
12. Frequency (respiratory rate)
13. List the hazards and complication of mechanical ventilation
14. Contraindication for non – invasive ventilation
15. Status of oxygenation
16. Indication for ventilation
17. Define tubing compliance
18. Requirement of an ideal weaning index

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