

MANIPAL UNIVERSITY**FIRST YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION – DECEMBER 2016****SUBJECT: BASIC SCIENCES
(SPECIALITY: ADULT CARDIO RESPIRATORY CARE)
(2013 SCHEME)**

Thursday, December 15, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

✍ Answer ALL the questions.**1. Discuss:**

- 1A. Hyponatremia
- 1B. Hypokalemia
- 1C. Hypocalcaemia
- 1D. Hypomagnesaemia

(4 marks × 4 = 16 marks)

2. Describe oxygen dissociation curve and effects of anemia in oxygen delivery.

(10+6 = 16 marks)

3. Short Notes:

- 3A. Compliance
- 3B. Regulation of cardiac output
- 3C. Anticholinergic drugs (inhalational)
- 3D. Long acting adrenergic bronchodilator
- 3E. Metabolic alkalosis
- 3F. Anatomy of respiratory tract

(8 marks × 6 = 48 marks)



MANIPAL UNIVERSITY**FIRST YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION – DECEMBER 2016****SUBJECT: ADVANCED RESPIRATORY THERAPY SCIENCE I****(SPECIALIZATION: ADULT CARDIO RESPIRATORY CARE)
(2013 SCHEME)**

Friday, December 16, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

☞ **Draw diagrams wherever necessary.**

1. Discuss the physiological effects of positive pressure ventilation on oxygenation, ventilation and lung mechanics.
(16 marks)
2. List down the patient-related and ventilatory related causes of sudden respiratory distress in patient receiving ventilatory support. What remedies would you apply for each cause?
(8+8 = 16 marks)
3. **Short notes:**
 - 3A. Auto-PEEP
 - 3B. Factors effecting aerosol administration on mechanical ventilation
 - 3C. Phase variables
 - 3D. Therapist driven protocol
 - 3E. Cardiovascular effects of positive pressure ventilation
 - 3F. Poliomyelitis epidemic in Scandinavia

(8 marks × 6 = 48 marks)

