Reg. No.									

MANIPAL UNIVERSITY

SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION – JUNE 2016

SUBJECT: ADVANCED RESPIRATORY SCIENCE – II

(SPECIALIZATION: ADULT CARDIO RESPIRATORY CARE / NEONATAL & PEDIATRIC RESPIRATORY CARE)
(2013 REGULATION)

Wednesday, June 01, 2016

Time: 10:00 – 13:00 Hrs. Max. Marks: 80

Answer the following questions.

1. How does prone position ventilation improve oxygenation? Explain with appropriate diagram. What are the steps to follow while proning a patient?

(10+6 = 16 marks)

2. What are the steps you would follow to eradicate infection in an ICU and avoid ventilator associated pneumonia?

(16 marks)

3. **Write short notes on:**

3A. Common ventilator related troubleshooting in ICU.
3B. What are the alternatives to conventional mechanical ventilation at home?
3C. Indirect calorimetry.
3D. With the help of graphs show changes during alterations in lung mechanics.
3E. Humidification in mechanical ventilation patients.
3F. Catheter complications associated with hemodynamic monitoring.

(8 marks × 6 = 48 marks)

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MANIPAL UNIVERSITY

SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION– JUNE 2016

SUBJECT: EMERGENCY MEDICAL SERVICES

(SPECIALTY: NEONATAL & PAEDIATRIC RESPIRATORY CARE)

(2013 BATCH)

Friday, June 03, 2016

Time: 10:00 – 13:00 Hrs. Max. Marks: 80

✍ **Draw diagrams where necessary.**

1. Explain the steps of NRP algorithm for a preterm neonate at 28 weeks with expected weight of 900gms. How will you manage this scenario if it has to be shifted to NICU?

(10+6 = 16 marks)

2. Discuss the approach towards a pediatric who is in the trauma triage with complaints of respiratory distress according to PALS.

(16 marks)

3. **Write short on:**

3A. Discuss the drugs epinephrine and sodium bicarbonate

(4+4 = 8 marks)

3B. Discuss the steps of rapid sequence intubation

(8 marks)

3C. Add a note on self inflating bag

(8 marks)

3D. Discuss the types of central and peripheral venous catheterization for pediatric in emergency

(8 marks)

3E. Discuss the approach to a pediatric trauma victim

(8 marks)

3F. Discuss the management of SVT in pediatrics

(8 marks)

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MANIPAL UNIVERSITY

SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION– JUNE 2016

SUBJECT: CRITICAL CARE MEDICINE – II

(SPECIALTY: NEONATAL & PEDIATRIC RESPIRATORY CARE)
(2013 REGULATION)

Monday, June 06, 2016

Time: 10:00 – 13:00 Hrs. Max. Marks: 80

✍ **Draw diagrams where necessary.**

1. A 3 day old baby is presented to NICU with respiratory distress. The preductal oxygen saturation is reading 92% and postductal saturation is reading 83%. The pulses are well felt in upper limbs where as in lower limbs it is feeble. The apex of heart is in the 6th intercostals space. Hyperoxia test is negative. What is the likely diagnosis of this baby? Reason why the baby would present with such problems on the 3rd day of life. What precautions are to be taken and what immediate complications are looked for? Discuss the ventilator management for post surgery and the care required in intensive care unit.

(2+4+2+8 = 16 marks)

2. A child is presented to triage with smoke inhalation injury. What is the management of this patient and discuss in detail?

(16 marks)

3. **Write short notes on:**

3A. Add a note on central hypoventilation syndrome and its treatment.

(4+4 = 8 marks)

3B. Management of burn injury victims in PICU.

(8 marks)

3C. What is the normal range of serum potassium and serum sodium? Discuss in detail the treatment for hyperkalemia and the complication associated with this derangement.

(1+1+4+2 = 8 marks)

3D. Discuss the clinical features of a child in congestive cardiac failure. What treatment guidelines are followed in CCF?

(6+2 = 8 marks)

3E. A male child of 8 years is presented to triage with peripheral weakness and history of increasing weakness from past 10 days. What is the likely diagnosis? What precautions are required to be taken and what are bedside measure could be checked for in regard to the respiratory system?

(1+3+4 = 8 marks)

3F. Explain Apnea Test. Explain the protocol followed to confirm inactivity.

(8 marks)

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MANIPAL UNIVERSITY

SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION – JUNE 2016

SUBJECT: ADVANCED PULMONARY REHABILITATION INCLUDING POLYSOMNOGRAPHY
(SPECIALIZATION: NEONATAL & PAEDIATRIC RESPIRATORY CARE)
(2013 REGULATION)

Wednesday, June 08, 2016

Time: 10:00 – 13:00 Hrs. Max. Marks: 80

1. Describe the selection and assessment of the chronic obstructive pulmonary disease patient for pulmonary rehabilitation.

(8+8 = 16 marks)

2. Define dyspnea. Describe the assessment and management of dyspnea.

(4+6+6 = 16 marks)

3. **Write short notes on:**

3A. Preventive aspects of the patient with chronic lung disease
3B. Surgical therapy for COPD patients
3C. Home mechanical ventilation
3D. Treatment of tobacco dependence
3E. Oxygen therapy in rehabilitation
3F. CPAP titration

(8 marks × 6 = 48 marks)

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MANIPAL UNIVERSITY

SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION– JUNE 2016

SUBJECT: MANAGEMENT IN RESPIRATORY CARE

(SPECIALTY: NEONATAL PAEDIATRIC RESPIRATORY CARE)

(2013 BATCH)

Friday, June 10, 2016

Time: 10:00 – 11:30 Hrs. Max. Marks: 40

1. Define values. What are the different types of values?

(2+8 = 10 marks)

2. Why is 'staff development' important? Describe some important methods used for this purpose.

(4+6 = 10 marks)

3. **Short notes:**

3A. Types of training

3B. Is management a science or an art?

3C. Differentiate between Efficiency and Effectiveness.

3D. What are the key factors affecting hospital expenditure?

(5 marks × 4 = 20 marks)