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MANIPAL UNIVERSITY

SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION – MAY/JUNE 2012

SUBJECT: ADVANCED RESPIRATORY SCIENCE – II

(Common for both Neonatal & Paediatric Respiratory Care and Adult Cardio Respiratory Care)

Monday, May 28, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

✍ **Draw diagram wherever necessary**

1. Define pulmonary function testing. Discuss the indication, principle of measurements, lung volume and capacities.

(2+4+4+3+3 = 16 marks)

2. **Discuss APRV under the following heading:**

2A. Advantage of APRV over conventional ventilation

2B. Initial settings of APRV

2C. Physiological effect on oxygenation and ventilation

2D. Weaning from APRV

(4×4 = 16 marks)

3. **Short notes:**

3A. Tracheal gas insufflation

3B. Cardiopulmonary exercise testing

3C. Goals of long term mechanical ventilation

3D. Humidification and nebulization

3E. Alarms situation

3F. Proportional assist ventilation

(8×6 = 48 marks)



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MANIPAL UNIVERSITY**SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION – MAY/JUNE 2012****SUBJECT: EMERGENCY MEDICAL SERVICES
(SPECIALTY: NEONATAL AND PAEDIATRIC RESPIRATORY CARE)**

Wednesday, May 30, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

1. Describe acute fluid resuscitation for circulatory shock. (16 marks)
2. Basic life support for the PALS healthcare provider. (16 marks)
3. **Write short notes on:**
 - 3A. Laryngeal mask airway
 - 3B. Treatment of bradycardia
 - 3C. Rapid Sequence Intubation
 - 3D. Vascular access
 - 3E. Causes of respiratory failure
 - 3F. Dopamine

(8×6 = 48 marks)



MANIPAL UNIVERSITY**SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION – MAY/JUNE 2012****SUBJECT: EMERGENCY MEDICAL SERVICES
(SPECIALTY: ADULT CARDIO RESPIRATORY CARE)**

Wednesday, May 30, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

1. Describe the assessment and management of a suspected stroke patient.
(16 marks)
2. Describe the significance and components of post resuscitation life support.
(6+10 = 16 marks)
3. **Write short notes on:**
 - 3A. Amiodarone
 - 3B. Acute Myocardial Infarction
 - 3C. Paediatric trauma
 - 3D. Sodium Nitroprusside
 - 3E. Tension pneumothorax
 - 3F. Tachycardia Treatment Algorithm
(8×6 = 48 marks)



MANIPAL UNIVERSITY

SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION – MAY/JUNE 2012

SUBJECT: CRITICAL CARE MEDICINE – II
(SPECIALTY: NEONATAL AND PAEDIATRIC RESPIRATORY CARE)

Friday, June 01, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

✍ Draw diagram where necessary.

1. Define acute renal failure. Discuss the clinical features and etiology of a 9 year old child. Describe the respiratory management of this child with respiratory distress and acute renal failure.

(2+6+8 = 16 marks)

2. Discuss the congenital cardiac defects. Explain clinical features and management of coarctation of aorta.

(8+8 = 16 marks)

3. **Write short notes on:**

- 3A. Neurological assessment in neonates.
- 3B. How would you improve the intake of nutrition for a ten year old child who is ventilatory dependent for more than two weeks?
- 3C. Airway management of a 6 year child with an upper GI bleed admitted in the intensive care unit.
- 3D. Assessment of brain death on a ventilatory dependent 12 year old child admitted in the intensive care unit.
- 3E. Discuss etiology, clinical features and management of disseminated intravascular coagulation.
- 3F. Reye syndrome: causes and management.

(8×6 = 48 marks)



MANIPAL UNIVERSITY**SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION – MAY/JUNE 2012****SUBJECT: CRITICAL CARE MEDICINE – II**
(SPECIALTY: ADULT CARDIO RESPIRATORY CARE)

Friday, June 01, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

1. Explain the causes, clinical features and diagnosis of Acute Myocardial Infarction.
(4+6+6 = 16 marks)
2. Describe the causes, pathophysiology and clinical features of acute renal failure.
(4+6+6 = 16 marks)
3. **Write short notes on:**
 - 3A. Heart block
 - 3B. Septic shock
 - 3C. Poliomyelitis
 - 3D. Ascites
 - 3E. Hemodialysis
 - 3F. Acute gastroenteritis

(8×6 = 48 marks)



MANIPAL UNIVERSITY**SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION – MAY/JUNE 2012****SUBJECT: PULMONARY REHABILITATION****(Common for both Neonatal & Paediatric Respiratory Care and Adult Cardio Respiratory Care)**

Monday, June 04, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

1. What do you understand by the term 'pulmonary rehabilitation'? Discuss how it may be applied for patients with Chronic Obstructive Pulmonary Disease (COPD).
(4+12 = 16 marks)

2. Describe the mechanisms and management of dyspnoea.
(4+12 = 16 marks)

3. **Write short notes on:**
 - 3A. Respiratory care equipment required for those with tracheostomy receiving home ventilation
 - 3B. Indications and contraindications for bullectomy
 - 3C. Role of Respiratory Therapist in the rehabilitation of a patient with neuromuscular disease
 - 3D. Strategy for rehabilitation of a paediatric patient with asthma
 - 3E. Pathophysiology and clinical features of bronchopulmonary dysplasia
 - 3F. Bronchial hygiene therapy

(8×6 = 48 marks)



MANIPAL UNIVERSITY

SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION – MAY/JUNE 2012

SUBJECT: PULMONARY REHABILITATION

(Common for both Neonatal & Paediatric Respiratory Care and Adult Cardio Respiratory Care)

Monday, June 04, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

1. What do you understand by the term 'pulmonary rehabilitation'? Discuss how it may be applied for patients with Chronic Obstructive Pulmonary Disease (COPD).
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(4+12 = 16 marks)

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 - 3A. Respiratory care equipment required for those with tracheostomy receiving home ventilation
 - 3B. Indications and contraindications for bullectomy
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 - 3D. Strategy for rehabilitation of a paediatric patient with asthma
 - 3E. Pathophysiology and clinical features of bronchopulmonary dysplasia
 - 3F. Bronchial hygiene therapy
(8×6 = 48 marks)

