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MANIPAL UNIVERSITY

SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION – JUNE 2014

SUBJECT: ADVANCED RESPIRATORY SCIENCE – II
(SPECIALIZATION: ADULT CARDIO RESPIRATORY CARE)

Monday, June 02, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

✍ **Draw diagram wherever necessary.**

1. Explain the importance and types of High Frequency Ventilation. Add a note on the mechanism.

(6+4+6 = 16 marks)

2. Discuss on the importance of hemodynamic monitoring of mechanically ventilated patients. Add a note on the complications.

(16 marks)

3. Short notes:

- 3A. Discuss on the importance of ECMO
- 3B. Discuss the concept of APRV as a newer mode.
- 3C. Review of arterial blood gases on alveolar ventilation
- 3D. Heliox therapy
- 3E. Aerosol therapy importance and types of devices
- 3F. Nitrogen wash out test

(8 marks × 6 = 48 marks)

MANIPAL UNIVERSITY**SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION– JUNE 2014****SUBJECT: EMERGENCY MEDICAL SERVICES
(SPECIALTY: ADULT CARDIO RESPIRATORY CARE)**

Wednesday, June 04, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

✍ Draw diagrams wherever necessary:

1. What are the different types of artificial airways used in emergency medical services? Add a note on foreign body obstruction in adults and infants.

(8+8 = 16 marks)

2. A patient in ICU has developed ventricular tachycardia. The patient is conscious and awake. What is the management required?

The same patient after few minutes became unconscious. What is the management required?

Add a note on post resuscitation care.

(6+4+6 = 16 marks)

3. Write short notes on:

- 3A. Clinical features and management of stroke
3B. Algorithm of secondary survey
3C. IV Cannula techniques for peripheral veins, femoral veins, internal jugular and sub clavian veins
3D. Write in detail about sodium bicarbonate as a drug
3E. Explain in detail the steps of endotracheal intubation
3F. Discuss in detail about cardio version

(8 marks × 6 = 48 marks)



Reg. No.

MANIPAL UNIVERSITY

SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION– JUNE 2014

SUBJECT: CRITICAL CARE MEDICINE – II
(SPECIALTY: ADULT CARDIO RESPIRATORY CARE)

Friday, June 06, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

☞ Draw diagrams wherever necessary.

1. Define Stroke. Discuss in detail on the clinical features, pathophysiology and management of stroke.

(2+3+6+5 = 16 marks)

2. Discuss on the types of heart block and their management.

(8+8 = 16 marks)

3. Short notes:

- 3A. Hyperkalemia management in the intensive care unit
3B. Clinical features and management of chronic renal failure
3C. Evaluation of brain death in the intensive care unit
3D. Aetiology and pathophysiology of Acute Pancreatitis
3E. Clinical features and management of Cardiac Tamponade
3F. Add a note on Intra-aortic balloon pump

(8 marks × 6 = 48 marks)



MANIPAL UNIVERSITY**SECOND YEAR M.Sc. (RESPIRATORY THERAPY) DEGREE EXAMINATION – JUNE 2014****SUBJECT: PULMONARY REHABILITATION
(SPECIALIZATION: ADULT CARDIO RESPIRATORY CARE)**

Monday, June 09, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

☞ Long notes:

1. Describe the anatomy and physiology of the neurological system under the following heading:

1A. Brain divisions

1B. Cranial nerves

(8+8 = 16 marks)

2. Explain CSA under the following heading:

i) Definition

ii) Clinical characteristics

iii) Pathophysiology

iv) Causes

v) Treatment

(16 marks)

3. Short notes:

3A. Explain on the polysomnography presentation of CSA and OSA

3B. Sleep disordered breathing in neuromuscular disease

3C. Emergency procedure during walk tests

3D. Mechanism of dyspnea and management

3E. Exercise training

3F. Patient selection and assessment for pulmonary rehabilitation

(8 marks × 6 = 48 marks)

