

[LB 0212]

AUGUST 2012

Sub. Code: 1213

**B.Sc. CRITICAL CARE TECHNOLOGY
SECOND YEAR**

PAPER III – ICU MONITORING – I

Q.P. Code : 801213

Time : Three hours

Maximum : 100 marks

(180 Mins) Answer All questions in the same order.

I. Elaborate on:

**Pages Time Marks
(Max.)(Max.)(Max.)**

1. What is acute myocardial infarction? Discuss the clinical features and ECG changes in myocardial infarction.
What in the important steps in immediate treatment? 7 20 10
2. What is ARDS? Describe the clinical features in ARDS.
Describe the arterial blood gas analysis in a patient with ARDS.
What is the Chest X-ray finding in ARDS? 7 20 10
3. Outline the general supportive treatment in the management of organophosphorus compound poisoning. What monitoring would you do for such a patient? What are the steps when such a patient becomes hypoxic? 7 20 10

II. Write Notes on:

1. How would you recognize airway obstruction? 4 10 5
2. What monitoring is required for transport of head injury patient to CT scan department? 4 10 5
3. What parameters would you monitor in a patient just extubated. 4 10 5
4. What is COPD? How are the vital parameters in patients with COPD? 4 10 5
5. What is acute renal failure? Classify 3 causes of acute renal failure in adult. 4 10 5
6. Write notes on various methods of oxygen therapy. 4 10 5
7. Write notes on importance of monitoring of cuff pressure in ICU. 4 10 5
8. How will you recognize a patient with ongoing bleed in ICU. 4 10 5

III. Short Answers on:

1. Draw a normal ECG and label its parts. 2 4 3
2. Enumerate the features of upper airway obstruction. 2 4 3
3. How would you set the alarm limits for heart rate and blood pressure for an adult. 2 4 3
4. How would you analyze blood gas in severe respiratory acidosis. 2 4 3

5. Write 3 important causes low blood pressure in an adult.	2	4	3
6. What are the important tests to measure coagulation?	2	4	3
7. What parameters are measured in a patient with liver failure?	2	4	3
8. What are the various types of pulse?	2	4	3
9. Write the grades of dyspnoea.	2	4	3
10. Draw a laryngeal mask airway and label its parts.	2	4	3

[LD 0212]

AUGUST 2013

Sub.Code :1213

B.Sc CRITICAL CARE TECHNOLOGY

SECOND YEAR

Paper III – ICU MONITORING -I

Q.P Code : 801213

Time : Three hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on :

(3X10=30)

1. Discuss the anatomy of the airways in detail. What are the definitive methods of securing the airway ? Add a note on the care of a patient on ventilator.
2. Define Cerebrovascular accident. Discuss the aetiopathogenesis and care of a CVA patient during the acute phase.
3. What are the common types of poisoning ? Discuss the care of these patients in an ICU setting. Add a note on the general methods of treatment in a case of poisoning.

II. Write notes on:

(5 x 8 = 40)

1. Various types of oxygen delivery system.
2. Chest x-ray finding in pneumothorax.
3. Difference between AC and DC power supply.
4. Management of bronchiectasis
5. Primary complex
6. Brain death and organ donation
7. Glasgow coma scale
8. Myasthenia gravis

III. Write short notes on:

(10 x 3 = 30)

1. Snake bite – DO's and Don'ts during first aid.
2. Precautions to be taken during extubation of a patient
3. Bronchial lavage
4. Intermittent positive pressure ventilation
5. Protection of cervical spine in an injured patient.
6. "Golden Hour"- in management of Acute myocardial infarction.
7. Diabetic ketoacidosis
8. Management of pulmonary edema
9. Causes of upper GI bleeding.
10. Classification of medical equipment.

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Answer All Questions

I. Elaborate on:

(3X10=30)

1. Define shock. Discuss the classification of shock. Write in detail about septic shock and its management.
2. How would you assess a patient with multiple injuries received in the triage? How do you prioritise the management of these patients? Add a note on cervical spine protection.
3. List the various monitoring gadgets used in the ICU. Discuss in detail about “multi parameter monitor”

II. Write notes on:

(5 x 8 =40)

1. Post traumatic hemopneumothorax.
2. Signs and symptoms of pneumonia.
3. Management of pulmonary embolism.
4. Risk factors for coronary artery disease.
5. Congestive cardiac failure.
6. Effects of voltage fluctuation on medical equipment and methods to safeguard them.
7. Oxygen toxicity.
8. Organ donation.

III. Write short notes on:

(10 x 3 = 30)

1. Storage and supply of oxygen.
2. Lung contusion.
3. Management of scorpion sting.
4. Airway protection in the unconscious patient.
5. Guillian Barre Syndrome.
6. Intercostal drainage.
7. Causes of acute renal failure.
8. X-ray findings in pulmonary contusion.
9. Positive pressure ventilation.
10. Methods of secretion removal from airway.

[LF 0212]

AUGUST 2014

Sub.Code :1213

B.Sc CRITICAL CARE TECHNOLOGY

SECOND YEAR

Paper III – ICU MONITORING - I

Q.P Code : 801213

Time : Three hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. Draw a normal CVP trace and label the parts?
What are the precautions you will take to prevent infection in a patient with central Line?
How will you troubleshoot a damped CVP trace in a patient?
2. What are the type of ventilator you know of?
How will you chose a non invasive ventilator mask for a 50 years old man needing NIV?
How often should you do preventive maintenance for the BIPAP machine?
3. What are the parameters you can measure in ABG machine?
What are the methods to calibrate it?
Enumerate the reasons for analytical errors in ABG

II. Write notes on:

(8 x 5 = 40)

1. Alarm limits for high pressure of an obese 30 years old female patient.
2. Five reasons for Hypoxia on a ventilated patient.
3. Placement of leads for a 12 lead ECG.
4. Safety precautions while handling medical electrical equipment.
5. Methods for sterilization of ventilator.
6. Safety measures employed t prevent lung injury to ventilated patient.
7. Electrical circuit of defibrillator.
8. What are the things you will check if the arterial trace disappears from the monitor?

III. Write short notes on:

(10 x 3 = 30)

1. Apnoea alarm.
2. One point Calibration.
3. Alarm limits for a) Minute volume b) PEEP, for a 30 years old male on ventilator.
4. Two things you will check before connecting the patient to defibrillator.
5. Initial C PAP setting for Pulmonary edema.
6. Complications of arterial line.
7. Two things you will check if there is leakage on NIV circuit.
8. Normal Invasive arterial trace and its parts.
9. Two steps you will take for chest tube disconnections from under water drainage.
10. Two indications for invasive ventilation.

[LG 0215]

FEBRUARY 2015
B.Sc. CRITICAL CARE TECHNOLOGY
SECOND YEAR
Paper III – ICU MONITORING - I
Q.P Code : 801213

Sub.Code :1213

Time : Three Hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. What is Acute Respiratory Distress Syndrome? Enumerate the critical care involved?
2. Define Hypertension. What are the types of hypertension? Write in detail about its complications.
3. What is Head Injury? How will you take care of a patient suffering from coma in an ICU?

II. Write Notes on:

(8 x 5 = 40)

1. Myasthenia gravis.
2. Deep vein thrombosis.
3. How will you transport a patient with spine injury?
4. Wound infection.
5. Intercostal drainage tube.
6. Acute pulmonary edema and its care.
7. Tracheal intubation.
8. Infusion pump.

III. Short Notes on:

(10 x 3 = 30)

1. Bed sore.
2. Nasal speculum.
3. Ryles tube.
4. What is endoscopy?
5. Neurogenic Shock.
6. Define Jaundice.
7. Write three symptoms of Hypoglycemia?
8. Define Bradycardia.
9. What is Pleural effusion?
10. What is ischemia?

[LH 0815]

AUGUST 2015

Sub.Code :1213

**B.Sc. CRITICAL CARE TECHNOLOGY
SECOND YEAR**

Paper III – ICU MONITORING - I

Q.P Code : 801213

Time : Three Hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe in details about Chronic Obstructive Pulmonary Disease, its types, clinical features and critical care management.
2. Define Cerebro Vascular Accident. Discuss the risk factors, pathogenesis and its critical care management.
3. Describe the aetiopathogenesis, diagnosis and critical care management of Acute Pancreatitis.

II. Write Notes on:

(8 x 5 = 40)

1. Post resuscitation care.
2. Causes of chest pain and how will you diagnose the ischemic chest pain.
3. Flail Chest.
4. Hypothermia.
5. Brain Death.
6. Critical Care Management of Hyperkalemia.
7. Principles of Pulse Oximetry and its Pitfalls.
8. Steps in Sterilization.

III. Short Notes on:

(10 x 3 = 30)

1. Types of blood pressure measurement.
2. Causes of Respiratory Acidosis.
3. Oropharyngeal airway.
4. CPAP Ventilation.
5. 'T' Piece.
6. Capillary Refilling Time.
7. Beck's triad
8. Fumigation.
9. Enumerate the parts of Laryngoscope.
10. Causes Of Upper Gastrointestinal Bleeding.

[LI 0216]

FEBRUARY 2016

Sub.Code :1213

**B.Sc. CRITICAL CARE TECHNOLOGY
SECOND YEAR**

Paper III – ICU MONITORING - I

Q.P Code : 801213

Time : Three Hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. Define Thermal burns, classification, clinical features and critical care management in detail.
2. Enumerate the etiology, diagnosis and management of Acute Kidney Injury.
3. Critical care approach to Unconscious patient.

II. Write Notes on:

(8 x 5 = 40)

1. How would you recognize the Airway Obstruction?
2. Write a note on Subarachnoid Haemorrhage.
3. Write a note on Lumbar Puncture.
4. Write a note on Renal Replacement Therapy.
5. Critical care management of Hypoglycemia.
6. Write a note on Deep Vein Thrombosis.
7. APACHE score.
8. Diagnosis and management of Unstable Angina.

III. Short Notes on:

(10 x 3 = 30)

1. Precautions during Intra Hospital Transfer of Patients.
2. Fresh Frozen Plasma- indications and contra indications.
3. Immediate treatment for Anaphylaxis.
4. Synchronized Cardioversion.
5. Draw the diagram of the Laryngeal Mask Airway.
6. Compatible articles for ETO Sterilization.
7. Causes of Wide Anion Gap Metabolic Acidosis.
8. Cyanosis.
9. ECG manifestation of Hyperkalemia.
10. Tracheostomy care.
