

[LE 0414]

APRIL 2014

Sub. Code: 1001

**FELLOWSHIP IN CRITICAL CARE MEDICINE
FINAL YEAR
(Candidates admitted 2012-2013)
PAPER I - BASIC SCIENCES APPLIED TO CRITICAL CARE**

Q.P. Code :231001

Time : 3 hours

Maximum : 100 marks

Answer All Questions

I. Elaborate on :

(2 X 20=40)

1. Explain the circle of Willis and its applied Anatomy.
2. Explain in detail the Broncho pulmonary segments of the Lung and its applied anatomy.

II. Write Short Notes on:

(10 X 6 = 60)

1. Differential diagnosis of metabolic Acidosis.
2. Supraventricular tachycardia.
3. Causes of coma in a diabetic patient.
4. Muscle relaxants.
5. Causes of Acute Kidney Injury.
6. Neuro muscular Junction.
7. Thermoregulation.
8. Metabolic changes following surgery.
9. Importance of positive End Expiratory pressure (PEEP).
10. Newer anticoagulants.

[LF 1014]

OCTOBER 2014

Sub. Code: 1001

**FELLOWSHIP IN CRITICAL CARE MEDICINE EXAMS
FINAL YEAR
(Candidates admitted 2012-2013)
PAPER I - BASIC SCIENCES APPLIED TO CRITICAL CARE**

Q.P. Code :231001

Time : Three hours

Maximum : 100 marks

I. Elaborate on : **(2 x 20=40)**

1. Vasomotor Area and blood pressure regulation.
2. Anatomy of Neuromuscular Junction. Discuss the sequence of events during Impulse Transmission.

II. Write notes on: **(10 x 6 = 60)**

1. Discuss Tenectaplastase. Contraindications for fibrinolytic therapy
2. Microsomal enzymes and their clinical importance
3. Intrinsic pathway of blood coagulation
4. Femoral triangle and applied anatomy
5. High Anion gap Metabolic acidosis
6. Hypokalemia and its clinical features. Briefly discuss the Renal causes of Hypokalemia.
7. Class III anti Arrhythmic agents
8. Lung volumes and their significance
9. Inferior vena cava – Anatomy and clinical applications in Critical care
10. Blood supply of the liver

[LG 0415]

APRIL 2015

Sub. Code: 1001

**FELLOWSHIP IN CRITICAL CARE MEDICINE EXAMS
FINAL YEAR
(Candidates admitted 2012-2013)
PAPER I - BASIC SCIENCES APPLIED TO CRITICAL CARE**

Q.P. Code :231001

Time : Three hours

Maximum : 100 marks

I. Elaborate on :

(2 x 20=40)

1. Functional anatomy of the Nephron. Discuss in detail about Urine Formation.
2. Impulse generation in the Heart. Discuss briefly various mechanism of Arrhythmogenesis.

II. Write notes on:

(10 x 6 = 60)

1. Nor Adrenaline
2. Protein binding of drugs and the determinants of protein binding
3. Myxedema coma
4. Inspiratory muscles of respiration. Explain Respiratory Paradox
5. Hypomagnesemia
6. Internal Jugular Vein and its Clinical Anatomy
7. Broncho Alveolar Segments
8. Respiratory Acidosis and Compensatory mechanism
9. Inotropic Agents
10. Thiopentone Sodium and role in Status Epilepticus

[LI 0416]

APRIL 2016

Sub. Code: 1001

**FELLOWSHIP IN CRITICAL CARE MEDICINE EXAMS
FINAL YEAR
PAPER I - BASIC SCIENCES APPLIED TO CRITICAL CARE**

Q.P. Code :231001

Time : Three hours

Maximum : 100 Marks

I. Elaborate on :

(2 x 20=40)

1. What is Preload? How does it differ from Preload responsiveness? How can one utilize Heart Lung interactions to predict fluid responsiveness in mechanically ventilated patient? Describe a technique to predict fluid responsiveness in a spontaneously breathing patient.
2. What is Metabolic Acidosis? How do you assess the degree of compensation for Metabolic Acidosis? Elaborate on the clinical approach to diagnose the cause of Metabolic Acidosis with a brief explanation on the utility of serum Osmolal Gap.

II. Write notes on:

(10 x 6 = 60)

1. Compare and contrast Succinylcholine, Vecuronium and Cisatracurium.
2. Cerebral Perfusion Pressure.
3. Anatomy of Coronary Circulation.
4. Ventilation Perfusion mismatch.
5. Pathophysiology of Hepatorenal syndrome.
6. Extended spectrum Beta Lactamase.
7. Mixed venous oxygen saturation.
8. Amiodarone.
9. Hypophosphatemia.
10. Plateau airway pressure – its measurement and significance.

[LL 1017]

OCTOBER 2017

Sub. Code: 1001

**FELLOWSHIP IN CRITICAL CARE MEDICINE EXAMS
FINAL EXAMS
PAPER I - BASIC SCIENCES APPLIED TO CRITICAL CARE**

Q.P. Code :231001

Time : Three hours

Maximum : 100 Marks

I. Elaborate on: **(2 x 20=40)**

1. What is cardiac output? What are the factors determining cardiac output?
Describe a technique to predict fluid responsiveness in a spontaneously breathing patient.
2. What is the difference between ventilation and respiration? Enumerate regulation of respiration. Mention the types of respiratory failure .

II. Write notes on: **(10 x 6 = 60)**

1. Adrenaline.
2. Definition and ECG changes in Hyperkalaemia.
3. Myxedema coma.
4. Anatomy of circle of Willis.
5. Oxygen dissociation curve.
6. Applied anatomy of femoral triangle.
7. Ventilation perfusion mismatch.
8. Significance of lactic acidosis.
9. What are supraglottic airways? Mention its types.
10. Pain pathway.

[LN 1018]

OCTOBER 2018

Sub. Code: 1001

**FELLOWSHIP IN CRITICAL CARE MEDICINE EXAMS
FINAL YEAR
PAPER I - BASIC SCIENCES APPLIED TO CRITICAL CARE**

Q.P. Code :231001

Time : Three hours

Maximum : 100 marks

I. Elaborate on : **(2 x 20=40)**

1. Describe Lobes of liver. How will you differentiate types of Jaundice? Stages of hepatic encephalopathy.
2. What is the difference between ventilation and oxygenation? Enumerate regulation of respiration and types of respiratory failure.

II. Write notes on: **(10 x 6 = 60)**

1. Hyperkalemia – Definition & ECG Changes.
2. Thyrotoxicosis.
3. Clinical anatomy anterior triangle of neck.
4. Applied anatomy of neuromuscular junction.
5. Dobutamine.
6. Broncho-pulmonary segments.
7. Amiodarone.
8. Anatomy of Circle of Willis.
9. Anatomy of Coronary Circulation.
10. Intrinsic pathway of blood coagulation.

[LO 0519]

MAY 2019

Sub. Code: 1001

**FELLOWSHIP IN CRITICAL CARE MEDICINE EXAMS
FINAL YEAR
PAPER I - BASIC SCIENCES APPLIED TO CRITICAL CARE**

Q.P. Code :231001

Time : Three hours

Maximum : 100 marks

I. Elaborate on : (2 x 20=40)

1. What is Preload? How does it differ from Preload responsiveness? How can one utilize Heart Lung interactions to predict fluid responsiveness in mechanically ventilated patient? Describe a technique to predict fluid responsiveness in a spontaneously breathing patient.
2. Impulse generation in the Heart. Discuss briefly various mechanism of Arrhythmogenesis.

II. Write notes on: (10 x 6 = 60)

1. Mixed venous oxygen saturation.
2. Plateau airway pressure – its measurement and significance.
3. Hypomagnesemia.
4. Internal Jugular Vein and its Clinical Anatomy.
5. Broncho Alveolar Segments.
6. Significance of lactic acidosis.
7. What are supraglottic airways? Mention its types.
8. Pain pathway.
9. Class III anti Arrhythmic agents.
10. Lung volumes and their significance.
