



**Part 2 Fellowship Examination in Critical Care Medicine 2016 -PAPER 1**

**College of Critical Care Medicine**

(under auspices of Critical Care Education Foundation)

Examination Endorsed by the International Board of Medicine & Surgery (IBMS), USA

<b>SECTION A (5 marks each)</b>	
Q. 1.	What is the role of cardio-selective beta-blockers in the management of severe heart failure?
Q. 2.	What are the advantages of DDD pacing compared to VVI pacing?
Q. 3.	<p>A Phase III study of a drug was undertaken to determine if it improved mortality in severe sepsis. The study was a randomized, double-blind, placebo-controlled, multicenter trial (n=1200). The mortality rates in the placebo arm and trial drug arm were 32% and 26% respectively.</p> <p>a) What do you understand by the term Phase III.? b) What was the absolute risk reduction? c) What was the relative risk reduction? d) Calculate the “number needed to treat”?</p>
Q. 4.	List the potential complications associated with management of a patient after intentional corrosive ingestion?
Q. 5.	Outline the key issues in the post-operative management of a morbidly-obese (135 Kg) patient with type 2 diabetes and sleep apnea syndrome post sleeve gastrectomy (Bariatric) surgery.

<b>SECTION B (5 marks each)</b>	
Q. 6.	Critically evaluate the role of “immune-nutrition” in the management of the critically ill patient.
Q. 7.	What are the perceived benefits of using leuko-depleted blood in clinical practice?
Q. 8.	What is your diagnostic approach to a 62-year-old man in respiratory distress with UNILATERAL wheeze?
Q. 9.	Critically evaluate (advantages, Disadvantages) the role of the prone position in critically ill patients.
Q.10	<p>A 64-year-old lady admitted with massive subarachnoid hemorrhage was pronounced brain dead based on a 4-vessel cerebral angiogram. After the angiogram, the total monitored respiratory rate was 20/min when the ventilator rate was set at 15/min.</p> <p>1. What are the potential causes of the discrepancy between set rate and the total respiratory rate? 2. What steps will you take to distinguish the cause of this discrepancy in respiratory rate?</p>

**Please TURN THE PAGE to see remaining questions.....**



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<b>SECTION C (10 marks each). **Answer any 4**</b>	
Q.11	<p>A young man weighing 80 kg is admitted with acute severe asthma. Soon after arriving, he has a respiratory arrest and is intubated and ventilated with the following ventilator settings: Mode: SIMV, FiO<sub>2</sub> 100%, Tidal volume 500 ml, Respiratory rate of 16/min, Inspiratory flow of 20 L/min, PEEP 5 cmH<sub>2</sub>O. He has pulse of 130/min, BP of 80/60. Arterial blood gas: pH 7.1, PCO<sub>2</sub> of 93 mmHg, PO<sub>2</sub> of 69 mmHg, HCO<sub>3</sub> of 28 mEq/L SaO<sub>2</sub> 90%.</p> <p>a) Comment on the ventilator settings, and describe what change (if any) you would make in each.</p> <p>b) What additional measurements would you take to assist ventilator management?</p>
Q.12	<p>A 42-year-old man with alcohol induced liver dysfunction and portal hypertension was doing well. He has abstained from alcohol for the past 8 months. He is now brought to hospital following a large hematemesis. Clinically he is drowsy, jaundiced, BP is 80 systolic, pulse of 124/minute, cold and clammy peripheries. Outline the principles and rationale for the initial management of this patient.</p>
Q.13	<p>Outline the management of acute right ventricular failure in an ICU patient with severe pulmonary hypertension?</p>
Q.14	<p>Outline (based on region of body) the potential roles for the use of ultrasound in the critically ill patient?</p>
Q.15	<p>A 46-year-old male is transferred to ICU following a cadaveric liver transplant for end-stage liver disease secondary to alcohol-induced cirrhosis. List the important management principles for the first 24 hours specific to this patient?</p>

<b>SECTION D (10 marks)</b>	
Q.16	<p>A 30-year-old man has been admitted to hospital with severe multiple injuries following a motor vehicle accident. On day 2, his intracranial pressure has stabilized and his head CT shows scattered punctate hemorrhages with subarachnoid blood, with no mass lesion requiring evacuation. His pelvic fracture and right tibia / fibula fracture have been managed with external fixation and a left leg femoral fracture has undergone open reduction and internal fixation.</p> <p>He has been in good health, but had a DVT 3 years ago and is not on any regular medication. Outline your approach to prophylaxis for venous thrombo-embolism in this patient?</p>

***Recheck: (1) You must put your Roll number on each answer sheet.***

***(2) Answer Numbers are correctly written in appropriate section.***