Part 1 Primary Examination in Critical Care Medicine 2015 -**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

Instructions: **Read the Instructions carefully**

1. Read the questions carefully and thoroughly. Candidates are advised to include in their answer only information that is relevant to the question and to write legibly.
2. **Short Notes in Section A and B: Each question carries 5 marks only.**
    a. You should not take more than 5 minutes per question in these sections.
    b. Normally one side of a fool-scape paper provided is enough as long paragraphs are not expected.
3. **Questions in Section C and D: Each question carries 10 marks only.**
    a. You should not take more than 10 minutes per question in these sections.
    b. Normally 2 side of a fool-scape paper provided is enough as long paragraphs are not expected.
    c. **Section C has extra question. Choose ANY 4 out of 5 Choices below.**
4. **Start all questions on a NEW Page**
5. It is not required to rewrite the question in your answer book. **CLEARLY write the ANSWER NUMBER** before your answer.
6. The questions in each section are worth equal marks.
7. Record your candidate ROLL number on top of each answer sheet paper (approx. 15 pages) in space provided.
8. Candidates fail or loose marks in a questions for one or more of the following reasons:
    a. Insufficient knowledge of the topic in question.
    b. Insufficient detail and/or depth of the answer.
    c. Lack of specificity and precision in the answers
    d. Poorly structured answer.
    e. Failure to answer the question as asked.
    f. Omission of all or part of the question.
9. The candidate has to demonstrate performance consistent with that of a competent senior registrar / junior consultant, i.e. demonstrate the ability for safe, effective, independent practice as an Intensivist.

GLOSSARY OF TERMS

- **Critically evaluate:** Evaluate the evidence available to support the hypothesis.
- **Outline:** Provide a summary of the important points.
- **List:** Provide a list.
- **Compare and contrast:** Provide a description of similarities and differences
- (E.g. Table form).
- **Management:** Generic term that implies overall plan. Where appropriate, may include diagnosis as well as treatment.
- **Discuss:** Explain the underlying key principles. Where appropriate, this may include controversies and/or pros and cons

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SECTION A (5 marks each)	
Q. 1.	A. Define lactic acidosis? B. Classify lactic acidosis with examples of each?
Q. 2.	With regards to AV Nodal Re-entrant Tachycardia (AVNRT): A. What is the mechanism of AVNRT (explain with diagram)? B. List ECG criteria for the diagnosis of AVNRT? C. What is the treatment of choice for recurrent episodes of AVNRT despite medications?
Q. 3.	List the laboratory abnormalities (including peripheral smear) of Micro-Angiopathic Hemolytic Anemia (MAHA)?
Q. 4.	What are Indications (guidelines) for use of CT scan in patient with acute pancreatitis?
Q. 5.	A. List the Poor prognostic indicators in Acetaminophen induced Acute Liver Failure (ALF)? B. What is the dose of N-acetylcysteine in Acetaminophen (paracetamol) induced ALF?

SECTION B (5 marks each)	
Q. 6.	A. What is the normal range for "mixed venous oxygen saturation (ScvO2 or SvO2)? B. List conditions in which this "mixed venous O2 saturation" is 1) Increased 2) Decreased.
Q. 7.	A patient of COPD develops hypotension within minutes of being intubated and ventilated. A. List 4 possible causes for his hypotension at this stage? B. How will you proceed to manage the hypotension in this patient?
Q. 8.	List various treatment options for management of raised intra-cranial pressure (ICP) in the patient with a severe closed head injury?
Q. 9.	Outline the role of activated charcoal in patients with acute poisoning?
Q.10.	A. What is the mechanism of action of amiodarone as an anti-arrhythmic agent? B. List 3 adverse effects of long term use of oral amiodarone.

SECTION C: ANSWER ANY 4 ONLY (10 marks each).	
Q.11.	A. What are absolute and relative contraindications for fibrinolysis in myocardial infarction (MI)? B. List and compare various fibrinolytic agents used in treatment of MI.
Q.12.	A 54 year, previously healthy, man has sustained cervical cord injuries in a road traffic accident involving C3 & C4 segments of spinal cord. A. Discuss the possible respiratory and cardiovascular complications that can occur in this patient? B. How will you manage each of these complications?
Q.13.	Outline the complications of massive blood transfusion?
Q.14.	Outline the indications and contraindications of non-invasive ventilation in the critically ill patient?
Q.15.	A. List the clinical and radiological characteristics of acute small bowel obstruction? B. List the clinical and radiological characteristics of large bowel obstruction

Please see backside for section D → → →

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SECTION D (10 marks)			
1	What is the rate of rise of PaCO2 during apnea testing? A. 1 mmHg/min. B. 3 mmHg/min. C. 5 mmHg/min. D. 7 mmHg/min. E. 10 mmHg/min.	6	The highest concentration (mg/ml) of fibrinogen is found in: A. Fresh frozen plasma. B. Cryoprecipitate. C. Cryosupernate. D. Platelet concentrate. E. Salt-poor albumin.
2	A tall R wave in lead V1 is typically present with: A. Left bundle branch block B. Right ventricular hypertrophy C. Inferior myocardial infarction D. Hyperkalemia	7	The Oxygen dissociation curve shifts to the right in all except? A. Alkalosis B. Fever C. Raised PCO2 D. Raised 2,3-DPG levels.
3	A patient is put on mechanical ventilator. Initial readings are: peak airway pressure is 34 mmHg and the plateau pressure is 10 mmHg. This patient is most likely suffering from? A. ARDS B. Bronchial asthma. C. Acute infective polyneuritis D. Pneumothorax	8	A 60 yr old man with history of ischemic heart disease presents with Ventricular Tachycardia (VTach). He is hemodynamically stable. The preferred choice of treatment here would be? A. IV. Amiodarone. B. IV. Magnesium C. IV. Verapamil D. IV. Digoxin.
4	The ideal pressure to which the cuff of the endotracheal tube must be inflated is? A. 5-10 mmHg B. 10-20 mmHg C. 20-30 mmHg D. 30-40 mmHg	9	All the following are associated with altered functioning of the Na-K-ATPase pump on the cell membrane except? A. Digoxin B. Beta-agonists C. Cardiac failure D. Thiazide diuretics
5	A 60 year female presents with epigastric pain, nausea and vomiting, heart rate of 50/min, and pronounced first-degree AV block. BP is 130/80. The coronary artery most likely to be involved in this patient is? A. Right coronary B. Left main C. Left anterior descending D. Circumflex	10	Which of the following has not been shown to reduce mortality after a myocardial infarction? A. Aspirin. B. Nitrates. C. Beta blocker D. ACE inhibitor E. Statin
Recheck: (1) You have put your Roll number on each answer sheet. ***(2) Answer are Numbered correctly & written in appropriate section.***			