



Part 1 Primary Examination in Critical Care Medicine 2019 -PAPER 2
College of Critical Care Medicine
(under auspices of Critical Care Education Foundation)
Examination Endorsed by the International Board of Medicine & Surgery (IBMS), USA

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 is enough as long paragraphs are not expected.
3. **Questions in Section C: 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 1 extra question. Choose ANY 4 out of 5 Choices below.**
4. **Section D: Each MCQ carries 1 mark only (total 10 Marks). Section D must be returned with the answersheet.**
5. **Start all questions on a NEW Page**
6. Do not rewrite the question in your answer book. **CLEARLY write the ANSWER NUMBER** before you answer.
7. The questions in each section are worth equal marks.
8. **Record your candidate ROLL number on top of each answer sheet paper.**
9. The candidate must demonstrate performance consistent with that of a competent senior registrar.

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 (eg. Table form).
- **Management:** Generic term that implies overall plan. (includes diagnosis as well as treatment).
- **Discuss:** Explain the underlying key principles. (this may include controversies and/or pros and cons)

CHECK LIST

	Important instruction	Sign if understood
1	Write legibly. No marks if Examiner cannot understand. Avoid abbreviations not clearly explained in beginning of your answer. <i>eg. The patient may have raised intracranial pressure (ICP)...subsequent ICP use in answer OK</i>	
2	Section C has 1 extra question. <u>Choose ANY 4 out of 5 Questions.</u>	
3	Start all questions on a NEW Page	
4	Write the ANSWER NUMBER before you answer.	
5	The questions in each section are worth equal marks.	
6	Record your candidate ROLL number on top of each answer sheet	



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SECTION A (5 marks each)	
Q. 1.	Discuss the role of autoregulation in maintaining cerebral blood flow?
Q. 2.	32 yr man is diagnosed to have subarachnoid hemorrhage (SAH) based on CT findings. A) List complications of SAH? B) Discuss the role of Nimodipine in such patients?
Q. 3.	Compare and contrast the pharmacology of Meropenem and Amikacin under the heading of: (a) Mechanism of action, (b) organisms covered, (c) pharmacokinetics, (d) dose and side effects.
Q. 4.	A) Define HELLP syndrome? B) Enumerate complications of HELLP syndrome?
Q. 5.	Classify acute kidney injury in the ICU based on its mechanism (give examples of each)?

SECTION B (5 marks each)	
Q. 6.	Discuss the significance of urinary anion gap in a patient with metabolic acidosis?
Q. 7.	A) List the causes of Coma in a patient with no focal signs and no meningeal irritation? B) Define persistent vegetative state?
Q. 8.	Discuss the adverse cardio-respiratory effects of Abdominal Compartment Syndrome in a mechanically ventilated patient.
Q. 9.	Classify antifungal agents (with examples) used for invasive fungal infections in critically ill patients.
Q.10.	List various laboratory abnormalities expected in a patient with thyroid storm?

SECTION C: ANSWER ANY 4 ONLY (10 marks each)	
Q.11.	A 52 yr man is brought to ICU after craniotomy for traumatic brain injury. He has no previous medical illness except incidental finding of Sr. calcium of 11.8 mg/dL. His urine output is noted to be 300 ml/hr in the ICU. A) List possible causes for his polyuria in the ICU? B) Outline your approach to diagnosing the cause of polyuria in this patient?
Q.12.	A). List the causes of hypocalcemia with metabolic acidosis? B). What are the indications for administration of IV calcium in the ICU?
Q.13.	A 49 yr female is unconscious on ventilator and suspected to be brain dead. A) Outline the situations in which clinical tests <i>cannot be</i> used to confirm brain death? B) How will you proceed to confirm brain death in such situation?
Q.14.	A). List the criteria for initiation of Renal Replacement Therapy (RRT) in the ICU? B). List various modes of RRT. C). What are the major disadvantages of peritoneal dialysis in adults with renal failure?
Q.15	33 yr patient is in the ICU for status epilepticus. A) Kindly discuss <i>the Pharmacological therapy</i> of seizures in this patient. B) How will you manage his seizures if found refractory to initial pharmacological management? (including doses of each)



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SECTION D (10 marks)			
1		<p>Overwhelming Post-Splenectomy Infection (OPSI) is most commonly due to?</p> <p>A. Mycobacterium</p> <p>B. Gram negative rods</p> <p>C. Gram positive capsulated cocci</p> <p>D. Anaerobes</p>	<p>6</p> <p>Hyperkalemia is likely to be seen in which of the following conditions?</p> <p>A. Primary Hyperaldosteronism</p> <p>B. Bartter's syndrome</p> <p>C. NSAID usage</p> <p>D. Cushings syndrome</p>
2		<p>Which statement is NOT TRUE about Nephrogenic diabetes insipidus?</p> <p>A. Sr. vasopressin levels are normal/low</p> <p>B. Can be associated with pregnancy</p> <p>C. Responds to treatment with Thiazide</p> <p>D. Can be caused by hypercalcemia</p>	<p>7</p> <p>In a patient with acute renal failure, if the urine osmolality is 600 mosm/L and urine Na is <20 mEq/L, the etiology is?</p> <p>A. Acute Glomerulonephritis</p> <p>B. Pre-renal cause</p> <p>C. Post-renal obstruction</p> <p>D. Acute interstitial nephritis</p>
3		<p>Which of the following is not an ethical principle?</p> <p>A. Non-maleficence</p> <p>B. Beneficence</p> <p>C. Autonomy</p> <p>D. Benevolence</p> <p>E. Social justice.</p>	<p>8</p> <p>Which of the following is not considered to be a secondary insult in brain injury patient?</p> <p>A. Hypoxia.</p> <p>B. Hypotension.</p> <p>C. Hypothermia.</p> <p>D. Fever</p> <p>E. Hyperglycemia.</p>
4		<p>All of the following are complications of amiodarone except:</p> <p>A. Severe thrombophlebitis at injection site</p> <p>B. Cardiac arrhythmias like Torsade de pointes</p> <p>C. Hypertensive heart failure</p> <p>D. Hyperthyroidism</p>	<p>9</p> <p>Potential consequences of status epilepticus include:</p> <p>A. Pulmonary edema</p> <p>B. Respiratory failure</p> <p>C. Hypoglycemia</p> <p>D. All the above</p> <p>E. None of the above</p>
5		<p>Correct statement regarding the use of low-dose dopamine in patients with acute renal failure include:</p> <p>A. Dopamine decreases the need for dialysis</p> <p>B. Dopamine decreases mortality</p> <p>C. Dopamine may convert oliguric to non-oliguric renal failure</p> <p>D. All the above</p>	<p>10</p> <p>Complications of aggressive therapy of diabetic ketoacidosis include:</p> <p>A. Hyperchloremic metabolic acidosis</p> <p>B. Hypocalcemia</p> <p>C. Cerebral edema</p> <p>D. Hypokalemia</p> <p>E. All the above</p>

Recheck:

(1) You have put your Roll number on each answer sheet.

(2) Answers are Numbered correctly & written in appropriate section.



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SECTION D Answers:

ROLL NUMBER: _____

MCQ 1	
MCQ 2	
MCQ 3	
MCQ 4	
MCQ 5	
MCQ 6	
MCQ 7	
MCQ 8	
MCQ 9	
MCQ 10	