ASSISTANT PROFESSOR (ANAESTHESIA) IN SLBSGMC (PAPER-II) (S.A.T.)

T.B.C.: 2025/AP-A-I/II **Roll No. _____**

Time Allowed: 03 hours **Maximum marks: 120**

QUESTION PAPER SPECIFIC INSTRUCTIONS

Please read each of the following instructions carefully before attempting questions.

1. There are **EIGHT** questions in TWO Parts in this paper.
2. The candidate has to attempt **(06) SIX** questions by choosing at least **(03) THREE** questions from each part.
3. All questions carry equal marks. Each question will consist of 04 sub parts having 05 marks and word limit will be 150 words for each sub-part.
4. Write answers in legible handwriting. Illustrate your answers with suitable sketches, diagrams and figures, wherever considered necessary.
5. Each part of the question must be answered in sequence and in same continuation.
6. Attempts of the questions shall be counted in sequential order. Unless struck off, attempt of a question shall be counted even if attempted partly. Any page or portion of the page left blank in answer booklet must be clearly struck off.

IMPORTANT NOTE: ANSWER ANY (03) THREE QUESTIONS FROM EACH PART.

USE OF MOBILE PHONES OR ANY OTHER COMMUNICATION DEVICES IS STRICTLY PROHIBITED IN THE EXAMINATION.

Part-I (60 marks)

Q. No. 1. A patient had a small infected sebaceous cyst on the scalp which surgeons decided to excise under local anaesthesia:

a) What are the different layers of SCALP?

b) The surgeon ask the anaesthesiologist to administer Scalp block with Local anaesthetic agents. Describe the different nerves that needs to be anaesthesized for successful scalp block.

c) What are the different categorical types of Local anaesthetic agents. Give 5 examples of each.

d) Define pKa value of local anesthetic agents and its clinical significance.

Q. No. 2. A 40 year old male patient suffered a road traffic accident where he sustained Head injury with compound fracture of left lower limb. On presentation to trauma centre his GCS was8, BP 80mmHg systolic and heart rate of 160 beats/ minutes. He was intubated and e fast done which was negative:

a) Classify hypo-volemic shock with characteristic clinical features.

b) What is GCS, mention its components and respective score?

c) The surgeon administered 1000 ml of crystalloid. Investigation reveals Hb 4gm%. PT/INR 20.5/12.5 with INR 2.5 and platelet count of 50,000/cumm. He decided to initiate Massive Transfusion protocol (MTP). Enumerate the various components of MTP.

d) Enumerate components of FAST and e FAST.

Q. No. 3. A 30-year-old male patient diagnosed case of severe brain injury was managed in neurosurgical ICU. Brain stem reflexes were absent and patient is a potential multi organ donar:

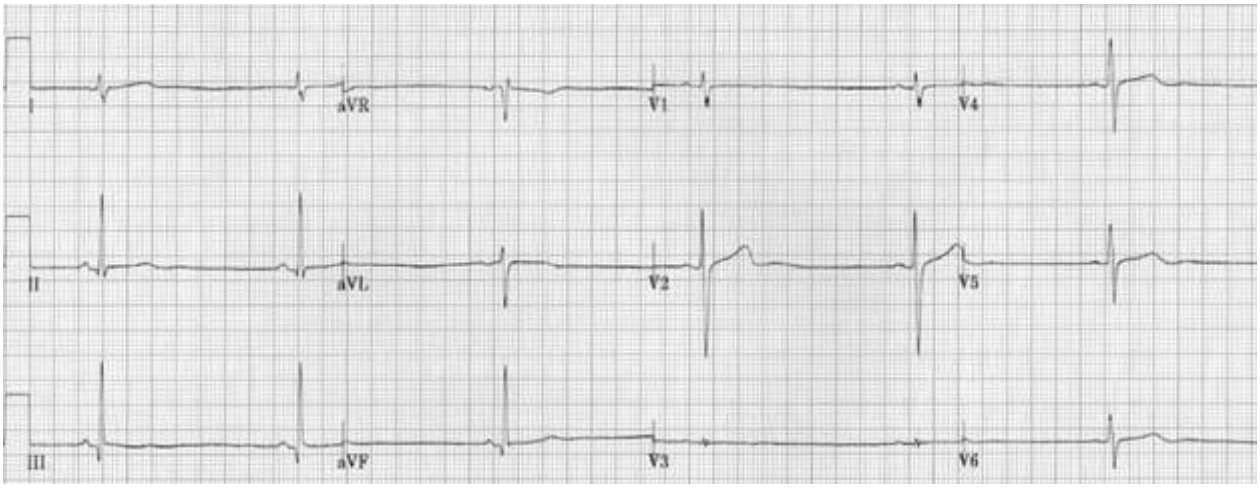
a) Define the criteria for brain death declaration.

b) What are the confirmatory and ancillary test for brain death in adults and paediatric patients?

c) Who can declare brain death as per NOTTO regulations?

d) What precautions an anaesthesiologist should take while harvesting organs for donation?

Q. No. 4. A 60 year old male patient presents to emergency with complaint of unease, shortness of breath, sweating and chest pain. Immediately oxygen was administered by non- rebreathing mask. ECG advised shows following rhythm. BP recorded as 70/40 mmHg:

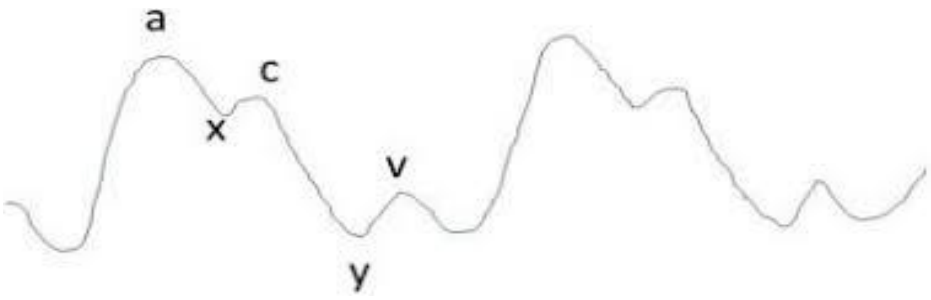


a) Interpret the ECG finding.
b) What are the medications that can be administered with dosage and route of administration?
c) While managing the patient the ECG monitor started beeping and ECG is a flat straight line. Illustrate with line diagram the management stratergy.
d) The patient had ROSC, he is still unconscious and is shifted to ICU for TTM. What is TTM and ways of administrating TTM?

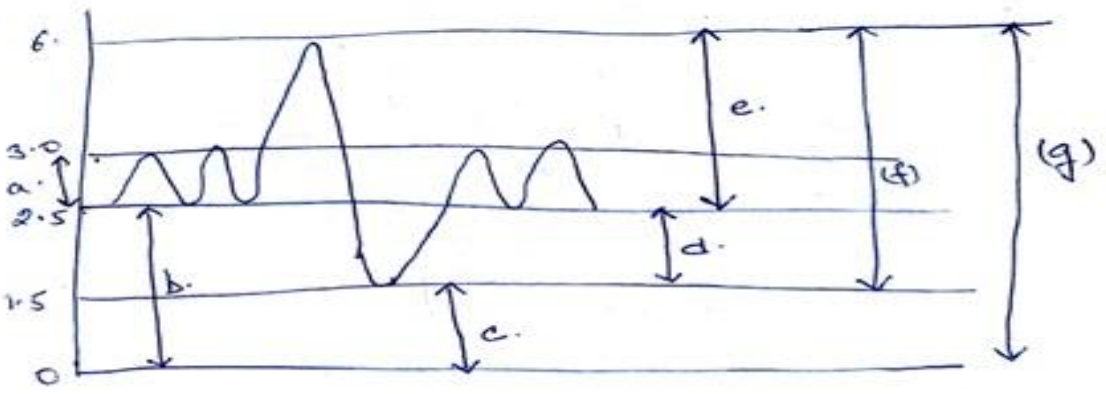
Part-II (60 marks)

Q. No. 5. A 30 year old female is being managed in ICU. The intensivist decides to cannulate the radial artery for IBP and right IJV for Central venous cannulation.

a) Describe test that should be done before radial artery cannulation.
b) Enumerate the complications of direct arterial pressure monitoring.
c) Enumerate 5 alternative sites for IBP.
d) Interpret the diagram and physiological causes of a, c, v, x, y.



Q. No. 6. A patient is planned for surgery and undergoes pulmonary function test as advised in PAC. Diagramatic representation is shown in figure.



a) Identify volumes and capacities shown as a, b, c, d, e, f & g.

b) How will you measure FRC? What are the factors affecting FRC?

c) What is dead space and how is it measured?

d) Draw Flow volume loop of obstructive and restrictive lung disease.

Q. No. 7. An eighteen (18) year old male presents with hoarseness of voice and diagnosed as respiratory pappilomatosis. Surgical excision using LASER is planned.

a) What are the peculiarities of endotracheal tubes used for LASER surgery? Name four (4) such tubes.
b) How will you manage airway fire?
c) Manual jet ventilation technique for conduct of such surgery.
d) Enumerate and management of postoperative complications.

Q. No. 8. A 156 cm tall male weighing 120 kg is scheduled for knee arthroplasty.

a) Classify obesity and when do you consider patient as super obese.
b) What are the pharmacokinetic effects of morbid obesity on body?
c) What pathophysiological changes in obese patient directly affect anaesthesia practice?
d) Airway management stratergies in such a patient.

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