

M.D. Examination

Anaesthesiology : Branch VI

Paper-I

(Applied Basic Sciences)

[Max. Marks : 100]

Date : 02-04-2019, Tuesday]

Time : 3 Hours]

- Instructions :
- (1) Figure to the right indicates marks.
 - (2) Write legibly and to the point.
 - (3) Draw diagrams wherever necessary.

1. What is cerebral autoregulation? Discuss briefly various factors affecting cerebral blood flow. 20
 2. Define entrainment ratio in the context of a venturi device. Describe how a ventimask functions in relation to the fresh gas flow. 20
 3. What is context-sensitive half-time and what are its implications for anaesthetic practice. 20
 4. Write short notes on- 40(8X5)
 - a) Physiological consequence of hypothermia
 - b) Central sensitization
 - c) Physiology of humidification in the airway
 - d) Descending Inhibitory Pain Pathway
 - e) Core body temperature, and the ways it can be measured
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M.D. Examination

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Paper II

(General Surgery & Medicine)

[Max. Marks : 100]

Date : 04-04-2019, Thursday]
Time : 3 Hours]

- Instructions :** (1) Figure to the right indicates marks.
(2) Write legibly and to the point.
(3) Draw diagrams wherever necessary.

1. Describe the preoperative preparation and the perioperative management of a 60 year old male patient with known bronchial asthma, scheduled for laparoscopic cholecystectomy. 5+15
 2. Describe the anesthetic concerns and management of a 38 week pregnant patient with mechanical mitral valve in situ for severe mitral stenosis, posted for elective cesarean section. 20
 3. In a cleft lip repair in a three month old child, describe the "rule of 10", specific anesthetic concerns, and methods of providing adequate postoperative analgesia. 5+10+5
 4. Write short notes on: 40(8X5)
 - a) Dorsal nerve of penis block
 - b) Desflurane
 - c) Causes of Chronic Neuropathic Pain
 - d) Perioperative cell salvage
 - e) August Bier's contributions in Anaesthesia
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M.D. Examination

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Paper III

(Anaesthesia, Analgesia)

[Max. Marks : 100]

Date : 08-04-2019, Monday]

Time : 3 Hours]

- Instructions :** (1) Figure to the right indicates marks.
(2) Write legibly and to the point.
(3) Draw diagrams wherever necessary.

1. Discuss the perioperative anesthetic management of a 52 year old male patient with severe obstructive jaundice scheduled for Whipple Procedure (Pancreaticoduodenectomy) 20
 2. Describe bone cement implantation syndrome and its precise management. 20
 3. Classify various categories of oral antidiabetic drugs and discuss well established protocols of insulin regimes for perioperative optimization of blood glucose. 20
 4. Write short notes on: 40(8X5)
 - a) WHO three step ladder in cancer pain
 - b) Prolonged QT interval and its significance in anaesthesia
 - c) Pressure-volume loop with the help of individual diagram of left ventricle for "mitral stenosis"
 - d) Risk stratification of HELLP syndrome
 - e) Postoperative visual loss
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Paper IV

(Modern Trends & Recent Advances)

[Max. Marks : 100]

Date : 10-04-2019, Wednesday]

Time : 3 Hours]

- Instructions :** (1) Figure to the right indicates marks.
(2) Write legibly and to the point.
(3) Draw diagrams wherever necessary.

1. Current status of ECMO in critical care practice. Mention the rule of a perfusionist in ECMO and what are the risks of being on ECMO? 20
 2. Videolaryngoscopy: importance of choosing the right device 20
 3. Pharmacodynamics and pharmacokinetics of Sugammadex and does reversal of neuromuscular block with Sugammadex reduce readmission rate after surgery? 20
 4. Write short notes on: 40(8X5)
 - a) Analgesia Nociception Index for monitoring intraoperative analgesia in children
 - b) TEG or rotational thromboelastometry (ROTEM) for assessment of coagulopathy
 - c) Bedside ultrasound for confirming tracheal tube placement
 - d) Naltrexone
 - e) BiPAP for COPD
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