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MANIPAL ACADEMY OF HIGHER EDUCATION
MD (ANAESTHESIOLOGY) DEGREE EXAMINATION – MAY 2021
PAPER I

Monday, May 03, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essays:**

1. Describe neuromuscular junction with a labelled diagram. And explain various methods of intraoperative neuromuscular monitoring.

(15 marks)

2. Explain oxygen dissociation curve. Write in detail about carbon dioxide transport in the body

(15 marks)

3. **Write Short Notes on:**

3A. Management of hyperkalemia

3B. Enumerate various methods of cardiac output monitoring. Explain any one in detail.

3C. Coronary circulation

3D. Cardioplegia used in open heart surgeries

3E. Write about various Buffer systems in the body

3F. Context sensitive half life

3G. Write about vapouriser function in high altitude

3H. Anatomy, indication, complication of Stellate ganglion block

3I. Anatomy of caudal space

3J. Clinical anatomy of Broncho-pulmonary segments

(7 marks × 10 = 70 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION
MD (ANAESTHESIOLOGY) DEGREE EXAMINATION – MAY 2021
PAPER II

Tuesday, May 04, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Illustrate your answer with diagrams where appropriate.**

✍ **Long Essays:**

1. What are the indications, contraindications and complications of regional anaesthesia in pediatric age group? Explain in brief the procedure of caudal blockade done in a 3 year old child posted for urethroplasty.

(15 Marks)

2. What is diabetic ketoacidosis? Explain how you will manage a case of uncontrolled diabetic mellitus with ketonuria, posted for emergency amputation of diabetic foot? What are the complications associated with DKA?

(15 Marks)

3. **Write short notes on:**

3A. Role of anaesthesiologist during pneumo-peritoneum.

3B. While performing labour epidural block, there was an accidental dural puncture: What are the various options available to the anesthesiologist to manage this situation?

3C. Explain how you will manage a patient with post tonsillectomy bleeding posted for re exploration.

3D. What are the options in fluid management of burns patient?

3E. Explain the supraclavicular approach to brachial plexus block.

3F. How will preoperatively prepare and manage a pregnant patient with dilated cardiomyopathy on treatment for emergency LSCS.

3G. Problems and role of anaesthesiologist in dental anaesthesia practice.

3H. A new born baby delivered by LSCS failed to cry immediately and is becoming cyanotic. How will you manage the case?

3I. Compare ropivacaine with bupivacaine and levobupivacaine

3J. Discuss the preoperative assessment and preparation of an 80 year old male posted cataract surgery under monitored anesthesia care.

(7 marks × 10 = 70 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION
MD (ANAESTHESIOLOGY) DEGREE EXAMINATION – MAY 2021
PAPER III

Wednesday, May 05, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Draw diagrams where appropriate.**

✍ **Long Essay:**

1. Discuss the preoperative evaluation, preparation, anesthetic management and merits of Video assisted Right lower lobectomy in a 22 year old female patient weighing 40 kg with bronchiectasis.

(15 marks)

2. Describe the anesthetic management of a 2.5 kg newborn with a Type C anomaly of tracheo esophageal fistula. Discuss the intra operative complications and post operative management.

(15 marks)

3. **Short questions:**

3A. Anesthetic implications in patients with drug eluting stent.

3B. Anesthesia for a 3 month old child with Upper respiratory infection scheduled for inguinal herniotomy.

3C. Ethylene oxide sterilization.

3D. Anesthetic implication in patients undergone renal transplantation.

3E. Fat Embolism in patients with long bone fractures.

3F. Heparin induced thrombocytopenia.

3G. Flow volume loops in patients with emphysema.

3H. Management of malignant hyperpyrexia.

3I. Expert Witness.

3J. Discharge Criteria's for office based Anesthesia.

(7 marks × 10 = 70 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION
MD (ANAESTHESIOLOGY) DEGREE EXAMINATION – MAY 2021
PAPER IV

Thursday, May 06, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Illustrate your answer with diagrams where appropriate**

✍ **Answer to the point as padding of answers will not fetch extra marks**

✍ **Long Essay:**

1. Discuss the initial assessment of trauma victims. Describe the clinical classification and pathophysiology of hypovolaemic shock.

(15 marks)

2. Describe low flow anaesthesia. What are the advantages, disadvantages and complications of low flow anaesthesia.

(15 marks)

3. **Write short notes on:**

3A. Role of anaesthesiologist in the management of chronic pain in cancer patients

3B. Pathophysiology and management of ARDS

3C. Lung recruitment manoeuvres

3D. Indications, technique of insertion and complications of pulmonary artery catheter

3E. Algorithm for the management of the unanticipated difficult airway in an adult

3F. Power of study

3G. Indications, technique and complications of Bier's block

3H. Algorithm for the management of a pulseless but shockable rhythm

3I. Indications, information obtained, limitations and complications of transoesophageal echocardiography

3J. Weaning from mechanical ventilation

(7 marks × 10 = 70 marks)

