

Reg. No.

MANIPAL ACADEMY OF HIGHER EDUCATION
MD (ANAESTHESIOLOGY) DEGREE EXAMINATION – APRIL 2018
SUBJECT: PAPER I: BASIC SCIENCES AS APPLIED TO ANAESTHESIOLOGY

Monday, April 02, 2018

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

- ✍ **Answer ALL the questions.**
- ✍ **Answer to the point as padding of answers will not fetch extra marks.**
- ✍ **Illustrate your answer with diagrams where appropriate.**

✍ **Essay Questions:**

1. Describe the anatomy of neuromuscular junction. Discuss the physiology of neuromuscular transmission and perioperative neuromuscular monitoring.

(15 marks)

2. Classify vaporisers. Discuss all the hazards of contemporary vaporisers.

(15 marks)

3. **Write short notes on:**

- 3A. Advantages and disadvantages of videolaryngoscopes
- 3B. Disadvantages of hydroxyethyl starch
- 3C. Measurement of peak expiratory flow rate and its importance
- 3D. Oxygen fail-safe mechanisms in the anaesthesia machine
- 3E. Esmolol
- 3F. ECG changes in hyperkalemia
- 3G. Poiseuille's law
- 3H. Diffusion hypoxia
- 3I. Oxygen dissociation curve
- 3J. Mixed venous oxygen tension

(7 marks × 10 = 70 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION**MD (ANAESTHESIOLOGY) DEGREE EXAMINATION – APRIL 2018****SUBJECT: PAPER II: ANAESTHESIA IN RELATION TO ASSOCIATE SYSTEMIC DISEASES**

Tuesday, April 03, 2018

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

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

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

✍ **Long Essays:**

1. Discuss in detail the anaesthetic management of a patient with a history of previous LSCS presenting with rupture uterus.

(15 marks)

2. Describe the preoperative evaluation, intraoperative and postanaesthetic management of a 25 year old lady with vocal cord papilloma undergoing laser surgery.

(15 marks)

3. **Write short notes on:**

3A. Assessment of autonomic function in diabetic patients.

3B. Postoperative nausea and vomiting after ophthalmic surgery.

3C. Anaesthetic implications in a patient with 40% burns sustained 3 months ago.

3D. Anaesthetic implications of hysteroscopy procedure.

3E. Shivering during labour analgesia.

3F. Angiotensin converting enzyme inhibitors and anaesthetic implications.

3G. Child-Pugh classification of liver disease.

3H. Levobupivacaine

3I. Haemophilic and anaesthesia

3J. Indications and technique of Transverse abdominis plane block.

(7 marks × 10 = 70 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION
MD (ANAESTHESIOLOGY) DEGREE EXAMINATION – APRIL 2018
SUBJECT: PAPER III: ANAESTHESIA IN RELATION TO SUB SPECIALITIES

Wednesday, April 04, 2018

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

- ✍ **Answer ALL the questions.**
- ✍ **Answer to the point as padding of answers will not fetch extra marks.**
- ✍ **Illustrate your answer with diagrams where appropriate.**

✍ **Essay Questions:**

1. Define intracranial pressure (ICP). What are the factors controlling ICP? Enumerate the pharmacologic and nonpharmacologic methods of lowering the ICP. (15 marks)

2. Describe the pre-anaesthetic evaluation, preparation and management of a middle-aged male scheduled for right upper lobectomy following carcinoma lung? (15 marks)

3. **Write short notes on:**

- 3A. Anaesthetic concerns in a neonate with congenital diaphragmatic hernia.
- 3B. Clinical uses of evoked potentials.
- 3C. Clinical features and management of hyponatraemia following TURP.
- 3D. Anaesthetic considerations in total hip replacement.
- 3E. Dabigatran – Write about its mechanism of action and recommendation with respect to its administration and central neuraxial blockade.
- 3F. Beneficial effects of smoking cessation.
- 3G. Management of acute exacerbation of asthma.
- 3H. Enumerate the endobronchial blockers. What are the advantages and disadvantages of these over double lumen tubes?
- 3I. Awake craniotomy.
- 3J. Anaesthetic considerations in patients with permanent pacemakers.

(7 marks × 10 = 70 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION
MD (ANAESTHESIOLOGY) DEGREE EXAMINATION – APRIL 2018
SUBJECT: PAPER IV: INTENSIVE CARE MEDICINE, PAIN MEDICINE AND
RECENT ADVANCES

Thursday, April 05, 2018

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

- ✍ **Answer ALL the questions.**
- ✍ **Answer to the point as padding of answers will not fetch extra marks.**
- ✍ **Illustrate your answer with diagrams where appropriate.**

✍ **Essay Questions:**

1. Write the Basic Life Support algorithm for an adult, child and an infant. Write the algorithm for management of 'flat line' on the monitor.

(15 marks)

2. Describe the criteria for diagnosis of brain death.

(15 marks)

3. **Write short notes on:**

- 3A. Define sepsis. Describe the management of severe hypotension in sepsis.
- 3B. Define massive blood transfusion. Describe briefly the clinical features and management of mismatched blood transfusion.
- 3C. Indications and contra-indications for noninvasive ventilations.
- 3D. Clinical features and management of organophosphorus compound poisoning.
- 3E. Indications, technique and complications of Stellate Ganglion block.
- 3F. WHO ladder for pain relief.
- 3G. Errors in statistical analysis.
- 3H. Complications of Total Parenteral Nutrition.
- 3I. Difficult Airway Cart.
- 3J. Percutaneous Tracheostomy.

(7 marks × 10 = 70 marks)

