

Question Paper

Exam Date & Time: 25-Jan-2023 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc. ANAESTHESIA AND OPERATION THEATRE TECHNOLOGY DEGREE EXAMINATION -
JANUARY 2023
SUBJECT: AOT5101- APPLIED MEDICAL SCIENCES
(2022 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Explain the pathophysiology, etiology, clinical manifestation, and management of anaphylactic shock (20)
- 2) Summarize the preparation for surgery, anaesthetic management, and expected complications in a 40-year-old female with gallstones posted for laparoscopic cholecystectomy (20)
- 3A) Explain in detail the conduction system of the heart along with a labeled diagram (10)
- 3B) Summarize the management of acute exacerbation of bronchial asthma (10)
- 3C) Explain in detail about four colloids used for intraoperative fluid management (10)
- 3D) Summarize the clinical presentation and management of acute myocardial infarction (10)
- 4A) What is the role of echocardiography in assessing cardiac functions? (5)
- 4B) What are the different tests used to assess liver functions? (5)
- 4C) What are the types of platelet disorders and treatment options? (5)
- 4D) Explain in detail about cardiogenic shock and its management (5)

-----End-----

Question Paper

Exam Date & Time: 27-Jan-2023 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc. ANAESTHESIA AND OPERATION THEATRE TECHNOLOGY DEGREE EXAMINATION -
JANUARY 2023
SUBJECT: AOT5102- ANAESTHETIC EQUIPMENTS & PROCEDURES
(2022 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) What is the American heart association guideline for advanced cardiac life support (20)
- 2) What is intraoperative awareness? What are the different methods to monitor the depth of anaesthesia (20)
- 3A) What are the different methods of sterilization of anaesthetic equipment? Explain in detail about any one method of sterilization. (10)
- 3B) Explain in detail the medical gas cylinders and pipeline distribution of medical gases (10)
- 3C) What are the different techniques used for upper limb brachial plexus nerve blocks (10)
- 3D) Summarize the minimally invasive cardiac output monitors (10)
- 4A) Explain in detail about the surgical tracheostomy (5)
- 4B) Explain the safety measures in storing, and transporting medical gases (5)
- 4C) List out ten gadgets for managing difficult airway (5)
- 4D) What are the different safety mechanisms in an anaesthesia machine to prevent the delivery of hypoxic gas mixture (5)

-----End-----

Question Paper

Exam Date & Time: 30-Jan-2023 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc. ANAESTHESIA AND OPERATION THEATRE TECHNOLOGY DEGREE EXAMINATION -
JANUARY 2023
SUBJECT: AOT5103- PHARMACOLOGY OF ANAESTHETICS
(2022 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Classify opioid analgesics. Explain the pharmacological action of morphine with its clinical implications (20)
- 2) Classify Anticholinergics. Explain the mechanism of action, therapeutic uses, and adverse effects of Atropine (20)
- 3) Explain the mechanism of action, uses, and adverse effects of Fentanyl (10)
- 4) List out the reversal agents for non-depolarizing blocks. Explain the mechanism of action, therapeutic uses, and adverse effects of Neostigmine (10)
- 5) Define massive blood transfusion. What are the indications for massive blood transfusion? (10)
- 6) What are the uses and adverse effects of Paracetamol? (10)
- 7A) Explain in brief about Ephedrine and its uses (5)
- 7B) Explain the mechanism of action, therapeutic uses, and adverse effects of Nitroglycerine (5)
- 7C) Compare and contrast crystalloids and colloids (5)
- 7D) Explain the cardiotoxic effects of Bupivacaine and the maximum safe dose (5)

-----End-----