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BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Sc.(OTT)-2021/B.Sc.(OTT)-2022/B.Sc.(OTT)-2023

Course Name – Basic Techniques of Anesthesia

Course Code - BOTTC403

(Semester IV)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Identify that all of the following are characteristics of an ideal general anesthetic except:
 - a) they should require uncomplicated equipment to administer
 - b) They should have a wide range of safety
 - c) they should rapidly metabolize to avoid cumulative toxicity
 - d) They should provide rapid and uncomplicated induction and emergence
- (ii) Write the dose of Thiopentone in G.A.
 - a) 5mg/kg
 - b) 2mg/kg
 - c) 0.5mg/kg
 - d) 7mg/kg
- (iii) Write if a patient has taken steroid for more than 3 weeks in last 1 year he/she must receive intraoperative supplementation of:
 - a) Hydrocortisone
 - b) NSAID's
 - c) Neostigmine
 - d) ALL
- (iv) Choose among the following the correct maximum safe dose of bupivacaine (plain).
 - a) 1mg/kg
 - b) 5mg/kg
 - c) 2mg/kg
 - d) 7mg/kg
- (v) Choose the odd one out.
 - a) Succinylcholine
 - b) Rocuronium
 - c) Pancuronium
 - d) Aspirin
- (vi) Name the type of anesthesia machine which is used for patients undergoing major surgery.
 - a) Portable anesthesia machine
 - b) Stationary anesthesia machine
 - c) Both A and B
 - d) Only A
- (vii) Choose which type of anesthesia is epidural anesthesia.
 - a) Regional anesthesia
 - b) General anesthesia
 - c) Local anesthesia
 - d) None of these

- (viii) Select the type of defibrillator that requires the use of paddles to deliver a shock.
- Automated external defibrillator (AED)
 - Implantable cardioverter -defibrillator (ICD)
 - Manual defibrillator
 - Wearable cardioverter -defibrillator (WCD)
- (ix) Choose the most appropriate monitoring parameter during general anesthesia:
- Blood pressure
 - Oxygen saturation
 - Body temperature
 - Heart rate
- (x) Infer the potential risks associated with the use of inhalational anesthetics:
- Respiratory depression and airway obstruction
 - Nausea and vomiting
 - Bradycardia and hypotension
 - Thrombosis and embolism
- (xi) Infer the potential side effect associated with the use of opioids as part of general anesthesia:
- Respiratory depression
 - Hypertension
 - Tachycardia
 - Bronchodilation
- (xii) Select the intravenous agent that is often used for procedural sedation and analgesia in the emergency department:
- Propofol
 - Midazolam
 - Ketamine
 - Fentanyl
- (xiii) Choose the inhalational agent that has the most potent respiratory depressant effects:
- Nitrous oxide
 - Sevoflurane
 - Desflurane
 - Isoflurane
- (xiv) Choose the inhalational agent that is associated with the most rapid emergence from anesthesia:
- Nitrous oxide
 - Sevoflurane
 - Desflurane
 - Isoflurane
- (xv) Choose the mechanism of action of local anesthetic agents:
- Stimulation of nerve impulses
 - Inhibition of nerve impulses
 - Stimulation of muscle contraction
 - Inhibition of muscle contraction

Group-B

(Short Answer Type Questions)

3 x 5=15

- Select the appropriate anesthesia technique for a patient undergoing abdominal surgery. (3)
- Describe the function of the reservoir bag in an oxygen mask. (3)
- Describe the general anaesthesia protocol in key steps ? write down the pre-operative fasting guidelines . (3)
- Describe the various techniques used in General anesthesia. (3)
- Estimate the staffing and equipment needs for safe and effective patient positioning during spinal and epidural anesthesia procedures.write down the details on propofol . (3)

OR

Estimate the staffing and equipment needs for safe and effective administration of general anesthesia in different healthcare settings. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

- Explain why Spinal Anesthesia is considered as Anesthesia of choice for lower limb surgeries over Epidural anesthesia and write the details on spinal anaesthetic drug . (5)
- Explain the different types of intravenous agents, and their respective indications for use in clinical practice. (5)
- Illustrate different types of regional anesthesia and write down their indication. (5)
- Explain the process of oral intubation and how will you confirm the position of the ET-Tube ?Write the function and insertion technique of guedal airway . (5)

11. Explain the stages of GA and write on reversal agent . (5)
12. Explain defibrillator and classify it. Write the patient position , technique that we used in Shock . Draw a algorithm on non-shockable rhythm . (5)

OR

- Explain advanced cardiac life support and ventricular fibrillation. (5)

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