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BRAINWARE UNIVERSITY

Term End Examination 2023

Programme – B.Sc.(OTT)-2021

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) Choose which among the following opioids are most commonly administered into the intrathecal (spinal) space?

- a) Morphine and fentanyl
b) Fentanyl and remifentanyl
c) Morphine and sufentanil
d) Fentanyl and sufentanil

(ii) Choose the correct answer. All but one of the following is a disadvantage of general anesthesia for Caesarian section, except

- a) Increased anesthetic requirement
b) Increased risk of awareness under anesthesia
c) Exacerbation of uterine atony
d) Increased risk of aspiration in the pregnant patient

(iii) Order the correct sequence of steps in performing CPR on an adult victim?

- a) Airway, Breathing, Compression
b) Breathing, Compression, Airway
c) Compression, Airway, Breathing
d) Airway, Compression, Breathing

(iv) Select the recommended flow rate for administering oxygen to an adult with shortness of breath

- a) 2-4 L/min via nasal cannula
b) 6-8 L/min via face mask
c) 10-12 L/min via non-rebreather mask
d) 15-20 L/min via mechanical ventilator

(v) Select the drug commonly used during advanced cardiac life support (ACLS) to treat pulseless ventricular tachycardia and ventricular fibrillation.

- a) Epinephrine
b) Atropine
c) Adenosine
d) Lidocaine

(vi) Identify the drug that can be used to reverse the effects of opioid overdose during cardiac arrest.

- a) Flumazenil
b) Dextrose
c) Naloxone
d) Sodium bicarbonate

- (vii) Choose the correct technique for opening the airway in basic life support.
- a) Jaw thrust
b) Head tilt-chin lift
c) Neck extension
d) Chest thrust
- (viii) Name the mixture of gases used in Anesthesia.
- a) O₂ and N₂O
b) O₂ and CO₂
c) CO₂ and N₂O
d) O₂, CO₂ and N₂O
- (ix) Name the method to measure changes in the levels of consciousness during anesthesia is _____
- a) Auditory Evoked Potential
b) Visual Evoked Potential
c) Tactile Evoked Potential
d) Speech Evoked Potential
- (x) Generalize the function of a nebulizer
- a) To supply moisture in the form of droplets
b) To maintain temperature
c) To maintain the gas levels of individual gases
d) To check the safety of valves
- (xi) Justify the statement, Sodalime is contraindicated with trielene because it causes the formation of
- a) neuro toxic components
b) nephro toxic components
c) Both
d) None
- (xii) Name the inventor of first anaesthesia machine
- a) W T G Morton
b) Humphry Devi
c) Edmund Gaskin Boyle
d) None
- (xiii) Identify the agent which causes dissociative anesthesia
- a) ketamine
b) Fentanyl
c) propofol
d) Thiopentone
- (xiv) Choose among the following which inhalational agent is induction agent of choice in children
- a) Methoxyflurane
b) Sevoflurane
c) Desflurane
d) Isoflurane
- (xv) Name the reversal drug for opioids
- a) Entonox
b) morphine
c) Nalaxone
d) Nitrous oxide

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Differentiate between spinal anesthesia and Regional anesthesia (3)
3. Illustrate the process of blood transfusion? Describe the factors influencing it. (3)
4. Illustrate the different types of IV fluids commonly used in clinical practice. (3)
5. Describe ET-Tube. Explain the intubation procedure. (3)
6. Classify the potential benefits of certain postures during spinal or epidural anesthesia (3)

OR

Classify the potential benefits of certain general anesthesia techniques, such as rapid onset or reduced side effects. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Explain the mechanism of action of local anesthetic agents. Discuss the factors that may affect their efficacy and duration of action. (5)
8. "Explain the importance of early recognition of cardiac arrest and the initiation of basic life support, and how this can improve patient outcomes." (5)
9. Explain in detail the importance of tourniquet in Bier's block. (5)

10. Distinguish between direct and video laryngoscopy, and the advantages and disadvantages (5) of each technique.
11. Justify why adrenaline is contraindicated in IVRA. Explain. (5)
12. Explain the preparation of Anesthetic drugs for lower limb surgery . (5)

OR

Explain various IV Induction agents. Which drug is mostly used in today's practice and why? (5)
