



BRAINWARE UNIVERSITY

Term End Examination 2023-2024

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

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) Read the question and select the appropriate answer. The oxygen flush system provides a higher flow of oxygen of _____ L/min when the patient's need for oxygen is greater than the amount the breathing circuit can provide.
- a) 25-50
b) 35-75
c) 55-95
d) 65-105
- (ii) Name the material by which vaporizers are made of
- a) steel
b) cast iron
c) copper
d) brass
- (iii) Name the fastest acting inhalational agent
- a) Sevoflurane
b) enflurane
c) Both 1,2
d) Desflurane
- (iv) Select in which of the following stage general anesthesia surgery is done
- a) Stage I
b) Stage II
c) Stage III plane 2
d) Stage III plane 3
- (v) Write 1 ml of liquid oxygen gives
- a) 940 ml of gas
b) 1040 ml of gas
c) 480 ml of gas
d) 840 ml of gas
- (vi) Select the narrowest portion of the neonate's airway
- a) Glottis
b) Trachea
c) Pharynx
d) Cricoid
- (vii) Select the most common type of regional anesthesia used for lower limb surgeries
- a) Epidural anesthesia
b) Spinal anesthesia
c) Peripheral nerve block
d) Intravenous regional anesthesia
- (viii) Name the component of an anesthesia machine which regulates the flow of anesthetic gases
- a) Vaporizer
b) Absorber

- c) Flow meter
d) Ventilator
- (ix) write the onset time for propofol as an induction agent in general anesthesia
a) 5-10 minutes
b) 30-60 minutes
c) 2-5 minutes
d) 10-15minutes
- (x) Name the three components of general anesthesia
a) Analgesia, amnesia, and unconsciousness
b) Analgesia, unconsciousness, and muscle relaxation
c) Amnesia, unconsciousness, and muscle relaxation
d) Analgesia, unconsciousness, and ventilation support
- (xi) Identify the correct hand placement for chest compressions in adult basic life support.
a) Over the lower half of the sternum
b) Over the upper half of the sternum
c) Over the left lower ribcage
d) Over the right lower ribcage
- (xii) Choose the device used for direct laryngoscopy during intubation.
a) Laryngoscope
b) Ventilator
c) Endotracheal tube
d) Oxygen mask
- (xiii) Choose the device used to confirm proper placement of the endotracheal tube during intubation.
a) Pulse oximeter
b) Blood pressure cuff
c) Capnograph
d) Electrocardiogram (ECG)
- (xiv) Choose the local anesthetic agent that is commonly used for epidural anesthesia:
a) Bupivacaine
b) Lidocaine
c) Procaine
d) Ropivacaine
- (xv) Choose among the following in which "Bobbin" is found
a) ET Tube
b) LMA
c) Ventilator
d) Anesthesia machine

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Describe the safety features of Anesthesia machine. (3)
3. Explain pin index system of various gases used in OT. (3)
4. Write a note on applications of Defibrillator? Draw a neat and clean diagram of it. (3)
5. Explain the difference between crystalloid and colloid IV fluids (3)
6. "Estimate the frequency of vital signs monitoring needed for patients with different medical conditions or based on the severity of their illness." (3)

OR

"Estimate the potential risks and consequences of misidentifying a patient, such as medication errors or wrong site surgery." (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Write a detailed description of the role of chest compressions in basic life support, and how they should be performed. (5)
8. Distinguish between crystalloid and colloid solutions. Give an example of each type of IV fluid. (5)
9. Describe the differences between acute and chronic post-operative pain. (5)
10. Classify different types of muscle relaxants, and what are their indications for use (5)
11. Measure the I.V anaesthetic agent dosage of a obese patient weighing 85kg. (5)
12. "Write the potential complications and side effects of anesthesia. How are these monitored and managed in the recovery room" (5)

OR

Justify how Inhalational agents are dependent on MAC.

(5)
