



BRAINWARE UNIVERSITY

Term End Examination 2023-2024
Programme – B.Sc.(OTT)-2021
Course Name – Basic Intensive Care
Course Code - BOTTC504
(Semester V)

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) select which of the following is a complication associated with long-term, high-flow oxygen therapy?
 - a) Hypercarbia

b) Hyperventilation

c) Oxygen toxicity

- d) Hypoxia
- (ii) Identify the primary advantage of a nasopharyngeal airway over an oropharyngeal airway?
 - a) It is easier to insert in unconscious patients.
- b) It provides better protection against aspiration.
- c) It can be used in conscious patients.
- d) It is available in a wider range of sizes.
- (iii) Infer the primary purpose of a Guedel airway
 - a) To secure an airway during surgery
- b) To maintain an open airway and prevent airway obstruction
- c) To facilitate tracheostomy tube placement
- d) To assist with mechanical ventilation
- (iv) select which of the following is a key principle of asepsis?
 - a) Promoting bacterial growth

- b) Minimizing hand hygiene
- c) Reducing the introduction of microorganisms
- d) Allowing open wounds to heal naturally
- (v) identify the term that describes a continuous positive airway pressure device used to assist with breathing and airway clearance.
 - a) Nebulizer

b) BiPAP

c) Incentive spirometer

- d) Stethoscope
- (vi) Identify the primary contraindication for chest physiotherapy.
 - a) Increased oxygen saturation

b) Recent abdominal surgery

c) Decreased heart rate

- d) Reduced lung compliance
- (vii) identify the primary indication for using a nasogastric (NG) tube?

	a) for enteral feeding c) To measure intracranial pressure	b) To remove respiratory secretionsd) To drain bile from the gallbladder		
(viii)	write the correct answer- A \"PR interval\" on an	ECG represents:		
	a) The time it takes for the atria to depolarize	b) The time it takes for the ventricles to depolarize		
	c) The time between the P wave and the QRS complex	d) The duration of the T wave		
(ix)	Select the type of ABG machine is most commonl hospitals for routine testing?	y used in clinical laboratories and		
	a) Benchtop ABG machine(Y)c) Laboratory-based ABG machine(N)Select the following parameters can typically be r	b) Handheld ABG machine(N)d) Point-of-care ABG machine(N)neasured by an ABG machine?		
(xi)	a) Hemoglobin concentration c) Blood volume select the write answer - A 45-year-old male with (COPD) presents with increased dyspnea and fatig			
	mm Hg, and HCO3- 30 mEq/L. Write likely diagno			
	a) Respiratory acidosis c) Metabolic acidosis	b) Metabolic alkalosis d) Respiratory alkalosis		
(xii)	identify is the primary purpose of a ventilator	a, nespirater, analosis		
(xiii)	 a) To provide oxygen to patients c) To administer nebulized medications select In which type of ventilation mode does the fixed rate? 	b) To maintain a patient\'s airway d) to assist with mechanical ventilation ventilator deliver a set tidal volume at a		
	a) Assist-control ventilation c) SIMV	b) Pressure support ventilation d) CPAP		
(xiv)	Choose Which of the following conditions is characteristic carbon dioxide (hypercapnia) in the blood?	acterized by abnormally high levels of		
	a) Respiratory acidosis b) Hyperventilation	b) Respiratory alkalosis d) Hypoxia		
(xv)	Select Which of the following is not a lung volume	1 11		
	a) Inspiratory reserve volume c) Residual volume	b) Cardiac output d) Tidal volume		
	Craw	- B		
	Grou _l (Short Answer Ty		3 x 5=15	
со	escribe in detail the recommended procedures for mponents of a ventilator, including breathing circu	its and humidifiers?	(3)	
	Il why routine maintenance of ventilator is crucial		(3)	
	4. discuss the primiary goals of care for unconscious adult patients, (
6. ev	ite the contraindications and potential complicational aduate the role of continuous monitoring, including caring for unconscious adult patients?		(3) , (3)	
	OR			
	mmerize the potential complications that can arise	e from prolonged unconsciousness in adul	t (3)	

Group-C

	(Long Answer Type Questions)	5 x 6=30	
7.	focus on the common indications for using an Ambu bag	(5)	
8.	summarize on the effective strategies for improving communication between healthcare providers and patients to reduce anxiety and increase trust?	(5)	
9.	9. distinguish between invasive and non-invasive ventilation.		
10. write the various methods of monitoring oxygen therapy		(5)	
11. tell about the concept of capnography and its significance in airway management. 12. write short note on hemodialysis		(5) (5)	
	OR		
	Explain the components and function of a hemofiltration circuit, including the filter, blood access, and dialysate solution.	(5)	