



BRAINWARE UNIVERSITY

Term End Examination 2023-2024

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

Course Name – Clinical Scenario for Critical Care Technology

Course Code - BCCTC403

(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 the cause of Respiratory Failure

- | | |
|-----------------------------------|------------------------|
| a) Ventilation-perfusion mismatch | b) hyperventilation |
| c) drug over dose | d) bronchoconstrictors |

(ii) Choose the treatment of pneumothorax

- | | |
|-------------------------|-----------------|
| a) Chest tube insertion | b) antibiotics |
| c) fluid administration | d) All of these |

(iii) Select the cause of obstructive shock.

- | | |
|-----------------------|--------------------|
| a) pulmonary embolism | b) plural effusion |
| c) Severe blood loss | d) infection |

(iv) Select the appropriate cause of upper GI bleeding.

- | | |
|----------------------|--------------|
| a) Esophageal ulcers | b) UTI |
| c) Cough | d) pneumonia |

(v) Select the right answer - Pancreatitis can be produced by the following drug

- | | |
|-------------------|-------------------|
| a) Ciprofloxacin | b) Nalidixic acid |
| c) L-Asparaginase | d) Colchicine |

(vi) Select the treatment for renal failure?

- | | |
|-----------------------------|---|
| a) diuretics | b) drugs lowering blood phosphate level |
| c) drugs controlling anemia | d) all of these |

(vii) Select the right answer - If someone is bitten by a snake and you can't get help right away, what first aid can you give?

- | | |
|---|---------------------------------------|
| a) keep the bite below the level of heart | b) clean the area with soap and water |
| c) cover the area with a clean dressing | d) all of these |

(viii) Select the right symptoms of Neutropenia.

- | | |
|-----------------------|-----------------|
| a) fatigue | b) fever |
| c) frequent infection | d) all of these |

- (ix) Write the right type of hematological malignancy involves cancerous plasma cells in the blood.
- a) leukemia
b) lymphoma
c) Myeloma
d) anemia
- (x) Tell which cardiac biomarker is commonly elevated in cardiogenic shock.
- a) Troponin
b) Creatine kinase
c) Brain natriuretic peptide (BNP)
d) Myoglobin
- (xi) Select the term defining the condition where there is an increase in the partial pressure of arterial carbon dioxide (PaCO₂) above 45 mmHg.
- a) Respiratory alkalosis
b) Metabolic alkalosis
c) Respiratory acidosis
d) Metabolic acidosis
- (xii) Select the correct answer- Myasthenia Gravis is characterized by a decrease in which neurotransmitter.
- a) Serotonin
b) Dopamine
c) Acetylcholine
d) GABA
- (xiii) Identify the first-line treatment for Myasthenia Gravis?
- a) Corticosteroids
b) Immunosuppressants
c) Acetylcholinesterase inhibitors
d) Intravenous immunoglobulin (IVIG)
- (xiv) Choose which of the following is a characteristic feature of Guillain-Barré Syndrome (GBS)?
- a) Fever
b) Muscle hypertrophy
c) Ascending paralysis
d) Bradycardia
- (xv) Tell the primary mechanism of injury in Guillain-Barré Syndrome (GBS):
- a) Axonal degeneration
b) Demyelination of peripheral nerves
c) Spinal cord compression
d) Neurotransmitter deficiency

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Write the goals of resuscitation in hypovolemic shock management (3)
3. Discuss the different levels of consciousness within a coma, and how are they categorized. (3)
4. Discuss snake bite (3)
5. Write the key differences between acute kidney injury (AKI) and CKD (3)
6. Differentiate between hypoxemic and hypercapnic respiratory failure (3)

OR

Explain does hypovolemic shock differ from other types of shock, such as cardiogenic or septic shock? (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Discuss the Glasgow Coma Scale (GCS) and its significance in assessing head injury severity and prognosis (5)
8. Explain Shock and its types in details (5)
9. Summarize hyperglycemia (5)
10. Analyze hematological parameter changes in lead poisoning (5)
11. Distinguish between Chronic Suppurative Lung Disease Bronchiectasis and COPD. (5)
12. Explain the different types of atelectasis and their respective mechanisms. (5)

OR

Explain the difference between atelectasis and pneumonia. (5)