



BRAINWARE UNIVERSITY

Term End Examination 2025-2026

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

Course Name – Concepts in Advanced Life Support

Course Code - BCCTC601

(Semester VI)

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 medication indicated for acute asthma exacerbation:

- | | |
|---------------|--------------|
| a) Warfarin | b) Morphine |
| c) Furosemide | d) Albuterol |

(ii) State the medication indicated for acute control of severe allergic reactions:

- | | |
|------------------|--------------------|
| a) Desloratadine | b) Epinephrine |
| c) Hydroxyzine | d) Diphenhydramine |

(iii) Identify the rhythm that are treated with cardioversion

- | | |
|--|---|
| a) Ventricular tachycardia without a pulse and atrial fibrillation | b) Atrial flutter and supraventricular tachycardia |
| c) Ventricular tachycardia with a pulse and ventricular fibrillation | d) Supraventricular tachycardia and ventricular tachycardia without a pulse |

(iv) Select the correct class of antiarrhythmic drug for Amiodarone

- | | |
|-------------|--------------|
| a) Class I | b) Class III |
| c) Class II | d) Class IV |

(v) select the correct answer- What electrolyte imbalance should be monitored closely in patients receiving Amiodarone

- | | |
|------------------|------------------|
| a) Hypernatremia | b) Hyperkalemia |
| c) Hypokalemia | d) Hypercalcemia |

(vi) Identify the preferred method for opening the airway in a person who is unresponsive.

- | | |
|------------------------------------|-----------------|
| a) Nasopharyngeal airway insertion | b) Finger sweep |
| c) Head tilt-chin lift | d) Jaw thrust |

(vii) Show the significance of the Glasgow Coma Scale (GCS) in the ICU

- | | |
|--------------------------------|-----------------------------------|
| a) Monitoring respiratory rate | b) Measuring kidney function |
| c) Assessing cardiac function | d) Evaluating neurological status |

(viii) Select the purpose of personal protective equipment (PPE) in the ICU

- a) Decrease equipment availability
- b) Increase patient exposure
- c) Enhance staff comfort
- d) Protect healthcare workers and patients from infectious agents
- (ix) Choose the correct answer- TPN is indicated in patients with:
 - a) Obesity
 - b) Severe malnutrition
 - c) Moderate malnutrition
 - d) Mild malnutrition
- (x) predict which of the following conditions increases the risk of developing pressure ulcers
 - a) Asthma
 - b) Hypertension
 - c) High cholesterol
 - d) Diabetes
- (xi) Choose the common complication of pressure ulcers involving the formation of abnormal tissue
 - a) Fistula
 - b) Sinus tract
 - c) Granulation tissue
 - d) Exudate
- (xii) write the potential cause of pressure ulcers in patients with malnutrition
 - a) Improved immune function
 - b) Enhanced wound healing
 - c) Decreased tissue oxygenation
 - d) Increased collagen production
- (xiii) Choose the correct answer- Chest physiotherapy is often indicated in patients with:
 - a) Asthma exacerbation
 - b) Renal calculi
 - c) Migraine headache
 - d) Type 2 diabetes
- (xiv) Infer the recommended depth of chest compressions in adult CPR
 - a) 1-2 inches
 - b) 2-3 inches
 - c) 3-4 inches
 - d) 4-5 inches
- (xv) Identify the medication that is given for symptomatic bradycardia in ACLS
 - a) Atropine
 - b) Amiodarone
 - c) Epinephrine
 - d) Adenosine

Group-B

(Short Answer Type Questions)

3 x 5=15

- 2. List the two main types of defibrillators. (3)
- 3. Describe the mechanism of action of epinephrine (3)
- 4. Write the potential adverse effects associated with norepinephrine administration. (3)
- 5. Describe the stages of bed sores and their clinical presentation. (3)
- 6. Rewrite the ACLS algorithms for the following cardiac rhythms: pulseless electrical activity (PEA), ventricular fibrillation (VF), and pulseless ventricular tachycardia (VT). (3)

OR

Infer the main physiological effects of epinephrine in cardiac arrest (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

- 7. Predict the advantages and disadvantages of parenteral nutrition compared to enteral nutrition. (5)
- 8. focus on the role of epinephrine in managing various critical situations in the ICU. (5)
- 9. Write the protocols for using a defibrillator during cardiac arrest in the ICU. (5)
- 10. Explain the key steps of BLS. (5)
- 11. Infer the use of antiarrhythmic medications such as amiodarone and lidocaine in ACLS. (5)
- 12. Write the procedure of surgical wound care (5)

OR

Rewrite the components of TPN solution. (5)
