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**BRAINWARE UNIVERSITY**

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398, Ramkrishnapur Road, Barasat  
Kolkata, West Bengal-700125

**Term End Examination 2025-2026****Programme – B.Sc.(PA)-2022/B.Sc.(PA)-2023****Course Name – Principles of Basic Intensive Care****Course Code - BPAS503****( 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 conditions is an indication for oxygen therapy.
- a) Mild hypoxemia with stable vital signs      b) Oxygen saturation >95%  
c) Treatment of anxiety      d) Preventive measure in healthy individuals
- (ii) Identify the Seldinger technique involves.
- a) Over-the-wire insertion of a catheter      b) Direct insertion of a cannula  
c) Using a trocar for insertion      d) Suturing the catheter in place
- (iii) Select the purpose of maintenance fluids.
- a) To treat severe dehydration      b) To replace blood loss  
c) To provide nutrients      d) To meet daily fluid requirements
- (iv) Define tracheostomy.
- a) A procedure to remove the gallbladder      b) A surgical procedure to remove the tonsils  
c) A procedure to create an opening in the trachea      d) A procedure to remove the appendix
- (v) Identify the technique is used to confirm NG tube placement before administering medication or feeding.
- a) Measuring tube length and marking it      b) Assessing for nasal discharge  
c) Listening for bowel sounds      d) Checking the tube's colour.
- (vi) State the primary purpose of a jejunotomy tube.
- a) To provide hydration      b) To remove excess gas from the intestine  
c) To administer enteral nutrition      d) To aid in breathing
- (vii) Define hypertension.
- a) Irregular blood pressure      b) Normal blood pressure  
c) High blood pressure      d) Low blood pressure
- (viii) Select which antiarrhythmic drug is a sodium channel blocker and may cause a widening of the QRS complex.
- a) Digoxin      b) Lidocaine

- c) Verapamil  
d) Amiodarone
- (ix) Select Which of the following is NOT a common symptom of acute kidney injury (AKI).  
a) Nausea and vomiting  
b) Swelling in the legs and ankles  
c) Decreased urine output  
d) Fatigue
- (x) Select which catheter type is used for measuring central venous pressure (CVP) and cardiac output.  
a) Nephrostomy catheter  
b) Condom catheter  
c) Swan-Ganz catheter  
d) Foley catheter
- (xi) identify the primary reason for providing surfactant therapy to premature neonates?  
a) To treat congenital heart defects  
b) To enhance lung compliance and reduce the risk of RDS  
c) To improve gastrointestinal function  
d) To prevent hypoglycemia
- (xii) Choose the write answer - A 50-year-old male with chronic liver disease presents with confusion and jaundice. ABG shows pH 7.48, PaCO<sub>2</sub> 40 mm Hg, and HCO<sub>3</sub><sup>-</sup> 30 mEq/L. Write primary acid-base disturbance.  
a) Respiratory acidosis  
b) Respiratory alkalosis  
c) Metabolic acidosis  
d) Metabolic alkalosis
- (xiii) predict the right option- Transfusion of packed red blood cells (PRBCs) is primarily indicated for:  
a) Leukemia  
b) Thrombocytopenia  
c) Anemia  
d) Hemophilia
- (xiv) identify the type of transfusion reaction that is characterized by fever, chills, and dyspnea?  
a) Allergic reaction  
b) Febrile non-hemolytic reaction  
c) Hemolytic reaction  
d) TRALI
- (xv) identify the that complication may occur if a patient receives a unit of blood too rapidly?  
a) Hypothermia  
b) Hypervolemia  
c) Hypercalcemia  
d) Hematoma

### Group-B

(Short Answer Type Questions)

3 x 5=15

2. State the common indications for initiating inotropic support in critically ill patients. (3)
3. State the role of intracranial pressure (ICP) monitoring in the management of severe head injuries. (3)
4. Discuss the fundamental principles of oxygen therapy, including its indications and goals. (3)
5. Write short note on metabolic alkalosis. (3)
6. explain the stages and progression of chronic kidney disease (CKD)? (3)

OR

focus on the pathophysiology of renal failure, (3)

### Group-C

(Long Answer Type Questions)

5 x 6=30

7. Compare and contrast the clinical presentation and symptoms of acute and chronic hepatic failure. (5)
8. Explain the diagnostic approach to hepatic failure, including the use of liver function tests, imaging, and clinical assessments. (5)
9. Explain the classification of arrhythmias based on their origin and duration (5)
10. Discuss in brief about the components of a standard ECG tracing, including the P-wave, QRS complex, and T-wave. (5)
11. write about the causes, diagnosis, and management of AKI nad CKD. (5)

- c) Verapamil  
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8. Explain the diagnostic approach to hepatic failure, including the use of liver function tests, imaging, and clinical assessments. (5)
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10. Discuss in brief about the components of a standard ECG tracing, including the P-wave, QRS complex, and T-wave. (5)
11. write about the causes, diagnosis, and management of AKI nad CKD. (5)

12. devise the components of post-intubation care, including mechanical ventilation settings, sedation, analgesia, and monitoring. (5)

OR

Explain the potential complications that may arise after successful intubation, such as ventilator-associated pneumonia (VAP) and ventilator-induced lung injury (VILI). (5)

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