1. Mrs. Smith, who has a history of severe heart failure, was admitted for treatment of sepsis. Her blood pressure is 70/40; her pulse is 110, weak and thready. She has no allergies. Her serum sodium is 130 mEq/L. BUN, creatinine and other electrolytes are within normal limits. Which of the following orders should the nurse question?
   a. IV Ciproflaxin, 500 mg. Bid
   b. IV 0.45% NaCl at 50 ml/hr.
   c. Strict intake and output
   d. Daily weights

2. Which of the following imbalances should the nurse anticipate in patients suffering from alcohol abuse or malnutrition?
   a. Hyperkalemia
   b. Hypomagnesemia
   c. fluid volume excess
   d. primary respiratory alkalosis

3. Which of the following interventions would be appropriate for a patient suffering from a hyperosmolar fluid volume excess who is unable to swallow anything by mouth?
   a. High protein tube feeding at 75 cc/hr.
   b. IV D10W at 75 cc/hr.
   c. IV D5 0.45% NaCl at 75 cc/hr.
   d. IV 0.45% NaCl at 75 cc/hr.

4. Burn victims, before treatment, often have multiple fluid and electrolyte disturbances including
   a. Hypovolemia
   b. Hyperkalemia
   c. Anaphylactic shock
   d. Combined respiratory and metabolic alkalosis
5. Nurses, in order to correctly evaluate the appropriateness of IV orders, need to know that:
   a. D5W, in large amounts, can cause cellular edema
   b. D5 0.9% NaCl is appropriate for hyperosmolar hypovolemia
   c. Lactated Ringers is a hypertonic solution
   d. 0.45% NaCl has the same tonicity (or osmolality) as body fluids

6. Nursing responsibilities when caring for the patient with hypocalcemia include:
   a. Assessing for metastatic calcifications
   b. Protecting the patient if seizures or tetany occur
   c. Restricting Vitamin D intake
   d. Education re importance of taking calcitonin

7. When educating patients about how the body regulates fluids and electrolytes the nurse explains that:
   a. Antidiuretic hormone secreted by the hypothalamus signals the kidneys to save both sodium and water
   b. Aldosterone is released by the adrenal glands and helps urinary excretion of water
   c. Atrial natriuretic peptide allows the body to retain water
   d. Thirst mechanism is activated when blood pressure decreases or more salt is ingested

8. Malnourished patients who are receiving nutrients are susceptible to refeeding syndrome, an electrolyte disturbance characterized by:
   a. Hypercalcemia
   b. Hyponatremia
   c. Hypophosphatemia
   d. Hyperkalemia

9. Nurses, when caring for patients in shock, need to be aware that:
   a. Hypovolemic shock is caused by increased capillary permeability in response to cellular breakdown
   b. The principle treatment of anaphylactic shock is blood and volume expanders
c. Septic shock is characterized by systemic inflammation resulting in vasodilation and third spacing

d. Increased cardiac output and vasodilation are hallmarks of cardiogenic shock

10. The nurse should observe patients in renal failure for signs and symptoms of:

a. Hypophosphatemia
b. Hypernatremic hypovolemia
c. Hypokalemia
d. Metabolic acidosis