DKA

1. Describe the general pathophysiology of ketoacidosis as it relates to the following:
   a. development of metabolic acidosis
   b. the role of counterregulatory hormones
   c. development of hyperglycemia

2. List and describe the pathophysiology of electrolyte abnormalities associated with DKA.

3. List the classic signs and symptoms and common laboratory findings of DKA.

4. List the general principles in the management of DKA.

5. Describe how insulin reverses DKA.

6. Describe the following statements as being “True or False”
   a. ________ volume expansion in DKA should be provided with several 20mL/kg boluses of half-normal saline to prevent shock from dehydration and avoid exacerbating the hyperosmolar state of the patient.
   b. ________potassium should be replaced only if the serum level is 5 mEq/L.
   c. ________the best option for potassium replacement in DKA is KCL 20mEq/L and Kphos 20mEq/L
   d. ________the drop in glucose following volume expansion is 2dary only to a dilutional effect
   e. ________Your patient with DKA and an initial glucose of 450 mg/dL has received a fluid bolus followed by an insulin drip at 0.1u/kg and IVF at 2x maintenance. Three hours later, the nurse reports a glucose of 110 mg/dL. Your next step is to
titrate the insulin drip to maintain a blood glucose level in the desired range of 150-250 mg/dL.

f. _____ cerebral edema occurs in patients who receive overly aggressive fluid administration

7. List the 4 proposed mechanisms responsible for cerebral edema.

8. List the signs and symptoms of cerebral edema.