



**QUESTION FOR DAY 2 POLLING COMPETITION**

1. The excretion of sodium by the kidney is regulated by

- a) Plasma osmolality
- b) Plasma volume
- c) Aldosterone
- d) All of the above

Ans: b (20 sec)

2. Salt poisoning can be well differentiated from hypernatremic dehydration by

- a) Urine osmolality
- b) Serum osmolality
- c) High ADH
- d) Fractional excretion of sodium

Ans: d (20 sec)

3. Extracellular fluid tonicity is regulated almost exclusively by

- a) Water intake and excretion
- b) Sodium intake and excretion
- c) Both
- d) Renal water reabsorption

Ans : a (20 sec)

4. Three years old boy presented with seizures. His height and weight were <3rd centile. He has developmental age of only 2 years with increased frequency of urine, polyuria and frequent water drinking habits. History of hard of hearing and visual defect were present. His urine routine showed 1+ protein, 3+ glucose and ketone negative. Blood glucose 12.3mmol/L. serum sodium was 156mEq/L, serum osmolality was 305mOsm. What would be the probable diagnosis?

- a) Diabetic ketoacidosis with cerebral edema
- b) Niikawa-Kuroki syndrome
- c) Wolfram syndrome (DIDMOAD syndrome)
- d) Congenital X-linked nephrogenic diabetes insipidus

Ans: c (one minute)

5. When the serum osmolarity is raising, which one will respond early

- a) Thirst
- b) ADH

- c) Both a & b
- d) None

Ans: b (20 sec)

6. What are the three features that strongly suggest hypervolemic hypernatremia or salt excess
- a) peripheral edema, urine sodium  $>20$  mEq and FENA  $> 2$
  - b) peripheral edema, urine sodium  $<20$  mEq and FENA  $<2$
  - c) peripheral edema, urine sodium  $< 20$ mEq and FENA $>2$
  - d) peripheral edema, urine sodium  $>20$ mEq and FENA $<2$

Ans: a (20 sec)

7. What is triphasic response after neurosurgery and the underlying mechanisms?
- a) Initial phase DI (12 -48 hr), SIADH (10 days), Permanent DI
  - b) Initial phase SIADH (12-48hr), DI (10 days), Permanent CSW
  - c) Initial phase SIADH (12-48hr), DI (10 days), Permanent SIADH
  - d) Initial phase CSW (12-48hr), SIADH (10 days), Permanent DI

Ans: a (20 sec)

8. Mechanism for adaptation in a child with hypernatremia?
- a) influx of sodium which draws water inside the cell
  - b) creation of idiogenic osmoles like taurine
  - c) a & b
  - d) none of the above

Ans: c (20 sec)

9. Hyperaldosteronism is a rare cause of hypernatremia? Clinical features and lab abnormalities that strongly suggest hyperaldosteronism?
- a) hypertension, hypokalemia, hyponatremia and metabolic acidosis
  - b) hypertension, hypokalemia, hypernatremia and metabolic alkalosis
  - c) hypertension, hyperkalemia, hypernatremia and metabolic acidosis
  - d) hypertension, hypokalemia, hyponatremia and metabolic alkalosis

Ans : b (30 sec)

10. Which statement is correct. Mention the sodium content in various IV fluids
- a) Normal saline 154 mEq/L, Ringer lactate 131 mEq/L, Plasmalyte balanced electrolyte solution 140 mEq/L
  - b) Normal saline 154 mEq/L, Ringer lactate 140 mEq/L, Plasmalyte balanced electrolyte solution 130 mEq/L
  - c) Normal saline 150 mEq/L, Ringer lactate 131 mEq/L, Plasmalyte balanced electrolyte solution 135 mEq/L (20 sec)
  - d) Normal saline 154 mEq/L, Ringer lactate 135 mEq/L, Plasmalyte balanced electrolyte solution 140 mEq/L

Ans - a