Memory Test - Body Fluid Electrolytes, Acid Base Balance_Class Test Online Foundation 1

Total Mark: 60 Time: 50 Min

1. ADH acts on the following parts of kidney

A) DCT

B) Thin ALLH

c) DLLOH

D) DCT

E) Collecting duct **Answer:** F, F, F, T, T

Discussion: (ADH acts on later DCT and cortical

collecting duct)

Reference: (Ref-Ganong 25th, Page-696)

2. Causes of secondary hyperaldosteronism-

- A) Conn's syndrome
- B) Cirrohtic liver disease
- C) Malnutrition
- D) Nephrotic syndrome

E) CCF

Answer: F, T, T, T

Discussion:

Reference: (Ref: ABC Biochemistry 5th/P-483)

3. Diagnostic features of SIADH are-

- A) Low plasma Sodium concentration
- B) High plasma osmolality
- C) Absense of adenal, thyroid insufficiency
- D) Clinically euvolaemic
- E) Decrease Urinary Sodium level

Answer: T, F, T, T, F

Discussion:

Reference: (Ref: Ganong 25th/P-313,696)

4. ECF differs from ICF

- A) Main ions -K+,Mg++
- B) More protein content
- C) Average PH-7.1
- D) Provide nutrients to cell for maintaining cellular life
- E) Provides essential fluid media inside the cell for chemical reaction

Answer: F, F, F, T, F

Discussion: F (Na+,cl-, HCO-3)F(less)F(7.4) TF

(Function of ICF)

Reference: (Ref: Vision 9th page-309)

5. Features of Isotonic hypovolemia-

- A) Occurs following hypertonic fluid loss
- B) There is proportional gain of salt and water
- C) Na + concentration of lost fluid is equal to that of plasma
- D) Plasma Na + concususally Increased
- E) Both ECF and ICF volume increases

Answer: F, F, T, F, F

Discussion: Reference:

6. Following statements are true regarding calcium

- A) Remains in four forms in body
- B) Respiratory alkalosis is responsible for increased serum Ca2+ level
- C) Acidosis leads to decreased calcium level
- D) Hyperthyroidism lead to hypercalcaemia
- E) Normally 98% calcium reabsorption occurs in PCT which is PTH dependent

Answer: F, F, F, T, F

Discussion:

Reference: (Ref: Ganong 25th, Page-375)

7. Inhibition of Na+-K+- ATPase would result in increased

- A) Intracellular Na- concentration
- B) Intracellular K+ concentration
- C) Intracellular glucose concentration
- D) Na+-glucose co-transport
- E) Na+-Ca2+ counter-transport

Answer: T, F, F, F, F

Discussion:

Reference: (Ref: Ganong 25th, Page-51)

8. A fall in plasma Na+ concentration

- A) Results from excessive production of ADH
- B) Decreases intracellular fluid volume
- C) Occurs in people engaged in hard physical work in hot humid climates
- D) Reduces plasma osmolarity
- E) Is likely to cause thirst

Answer: T, F, T, T, F

Discussion: (Because decrease plasma osmotarity)

Reference: (Ref: Ganong25th,P-696)

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9. Causes of Hypercalcemia with Normal or raised 10. Compared with intracellular fluid, the PTHextraceilular fluid has lower A) Primary Hyperparathyroidism A) Osmolality B) Lithium induced Hyperparathyroidism B) Sodium ion concentration C) Familial Hypocalciuric hypercalcaemia C) Chloride ion concentration D) Thyrotoxicosis D) Potassium ion concentration E) Milk alkali syndrome E) Hydrogen ion concentration Answer: T, T, T, F, F Answer: F, F, F, T, T Discussion: Discussion: Reference: (Ref: ABC Biochemistry 5th/P-387) **Reference:** (Ref: Rodde-Q-1) 11. Factors that regulate the transmembrane 12. Hypervolumia is associated withefflux of potassium -A) Increase ANP A) Insulin B) Decrease Renin B) Potassium excess C) Decrease aldosterone C) Alpha blocker D) Increaase ADH D) Beta agonist E) Increase Vagal activity E) Aldosterone Answer: T, T, T, F, T Answer: F, F, F, F, F Discussion: Discussion: Reference: (Ref: ABC Biochemistry 5th, P-360) Reference: 13. Metabolic acidosis □ normal anion gap 14. Regarding total body water-A) Renal failure A) Body fluid declines with age B) Female has lower percentage of water B) Diarrhoea C) Is inversely proportional to fat C) Ureterosigmoidostomy D) Acetazolamide D) Early fetal life contains 95% of water E) Male has more water than female E) NH4Cl ingestion Answer: T, T, T, T, T Answer: T, T, T, T, T Discussion: F (Increased anion gap) TTTT Discussion: Reference: (Ref: ABC biochemistry-5th ,P-317) Reference: 15. When ECF OP-ICF OP-16. Ammonia buffer is present in-A) Cellular dehydration occurs A) ICF B) Increase Intracellular Hydrostatic pressure B) ECF C) Impairment of cellular metabolic activities c) RBC D) Cerebral oedema occurs that leat to coma D) Urine E) Water exits from the cell E) Blood Answer: F, T, T, T, F Answer: D Discussion: Discussion: Reference: (Ref: ABC Biochemistry 5th/Page-340) Reference: (Ref: Ganong25th, P-712) 17. Causes of Hypercalcaemia with elevated PTH 18. Incorrect regarding Laboratory finding of levels-Metabolic Alkalosis-A) High PH A) Thyrotoxicosis B) Thiazide diuretics B) High Bicarbonate C) Glucocorticoid deficiency C) Low PCo2 D) Positive base excess D) Breast malignancy E) Tertiary hyperparathyroidism E) Moderately increased Anion gap Answer: E Answer: C Discussion: Discussion:

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Reference: (Ref: Davidson 23rd,P-662)

Reference:

19. The commonest cause of SIADH is- A) Idiopathic B) Tumours C) Anticonvulsant D) TB E) Psychosis Answer: B Discussion: Reference: (Ref: Ganong/ 25th /P-698)	20. Transmembrane potassium Efflux occurs by A) Acidosis B) Insulin C) Aldosterone D) Alkalosis E) Acute potassium excess Answer: A Discussion: Explanation: factor regulating transmembrane potassium are: - glucagon - □ blocker - acidosis - □- agonist - acute potassium deficit - ECF hyperosmolarity Reference: (Ref: ABC Bio 7th /Page-347)
21. Type 1 RTA occurs in- A) TALLH B) DCT C) PCT D) CD E) LOH Answer: B Discussion: Reference: (Ref: ABC Biochemistry 5th/P-323)	22. Unchanged Anion gap with hyperchloremic metabolic acidosis occurs in- A) Lactic acidosis B) Starvation ketosis C) Hypercalcaemia D) Kidney disease E) Diarrhoea Answer: E Discussion: Reference: (Ref: ABC Biochemistry 5th/P-316,317))
23. Which one is incorrect regarding laboratory finding of metabolic acidosis- A) Low PH B) Low plasma Bicarbonate C) Low Co2 D) Positive base excess E) Normal anion gap Answer: D Discussion: Reference: (Ref: ABC Biochemistry 5th,P-318)	24. Which one is increased in Vitamin D deficiency- A) PTH B) Total S. Calcium C) Ionised Serum Calcium D) Serum Phosphate E) Calcium absorption from Upper GIT Answer: A Discussion: Reference:
25. Which one is not the cause of Normal Anion gap with hyperchloremic metabolic acidosis- A) Diarrhoea B) Proximal RTA C) NH4Cl D) Hypoalbuminemia E) Ureterosigmoidestomy Answer: D Discussion: Reference: (Ref: ABC Biochemistry 5th,P-319)	26. Which one of the following caused Hyperkalemia A) Insulin B) ECF hyperosmolarity C) Aldosterone D) Alkalosis E) Alpha blocker Answer: B Discussion: Reference: (Ref: ABC Biochemistry 5th/P-375)

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27. ECG changes that occur in Hypercalcaemia causesA) Absent p wave

B) Broad QRS comples

C) ST depression

D) Prominant U wave

E) Short QT interval

Answer: E Discussion:

Reference: (Ref: Ganong 25th ,P-534-535)

28. False In Respiratory acisosis-

A) Low PH

B) High Plasma HCo3-

C) High PCO2

D) Negative Base excess

E) Anion gap usually normal

Answer: D Discussion:

Reference: (Ref: ABC Biochemistry 5th/P-306,328)

29. Paradoxical Acidurea occurs in-

A) Metabolic Acidosis

B) Vomiting

C) Respiratory Alkalosis

D) After retention of Co2

E) After Diarrohea

Answer: B Discussion:

Reference: (Ref: ABC Biochemistry 5th/P-311)

30. Which one is not true Feature of Co2 retention-

A) Warm periphery

B) Tachycardia

C) Pulmonary Vasodilatation

D) Flapping tremor

E) Oxy-HB dissociation curve shifts to right

Answer: C Discussion:

Reference: Ref: Ganong 25th/P-660)

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