

SSR DEGREE COLLEGE AUTONOMOUS NIZAMABAD

PG SEM-2 INTERNAL -2 QNBK

SUBJECT:- NUTRITIONAL BIOCHEMISTRY

I. Multiple Choice Questions

1. Obesity is characterized by excessive accumulation of:

- A. Proteins
- B. Minerals
- C. Fat
- D. Water

Answer: C

2. Cachexia is commonly associated with:

- A. Overnutrition
- B. Severe weight loss
- C. Hyperlipidemia
- D. Vitamin toxicity

Answer: B

3. Gaucher's disease is due to deficiency of:

- A. Lipase
- B. Glucocerebrosidase
- C. Amylase
- D. Protease

Answer: B

4. Niemann-Pick disease involves accumulation of:

- A. Cholesterol
- B. Sphingomyelin
- C. Glucose
- D. Glycogen

Answer: B

5. Tay-Sachs disease is caused by deficiency of:

- A. Hexosaminidase A
- B. Lipoprotein lipase
- C. Catalase
- D. Trypsin

Answer: A

6. Fabry's disease is linked with deficiency of:

- A. Alpha-galactosidase A
- B. Lactase
- C. Amylase
- D. Pepsin

Answer: A

7. Hyperlipoproteinemia refers to:

- A. Low lipid levels
- B. High lipoprotein levels
- C. Low protein levels

D. Excess glucose

Answer: B

8. During starvation, the body primarily uses:

A. Glycogen

B. Fat stores

C. Vitamins

D. Minerals

Answer: B

9. Vitamin A is important for:

A. Bone strength

B. Vision

C. Blood clotting

D. Oxygen transport

Answer: B

10. Deficiency of Vitamin A leads to:

A. Scurvy

B. Night blindness

C. Rickets

D. Anemia

Answer: B

11. Vitamin D helps in absorption of:

A. Iron

B. Calcium

C. Sodium

D. Potassium

Answer: B

12. Rickets is caused by deficiency of:

A. Vitamin A

B. Vitamin D

C. Vitamin E

D. Vitamin K

Answer: B

13. Vitamin E mainly acts as:

A. Hormone

B. Antioxidant

C. Enzyme

D. Mineral

Answer: B

14. Vitamin K is essential for:

A. Vision

B. Blood clotting

C. Bone growth

D. Digestion

Answer: B

15. The largest component of the human body is:

A. Protein

B. Water

C. Fat

D. Carbohydrate

Answer: B

16. Normal body water percentage is approximately:

A. 20%

B. 40%

C. 60%

D. 80%

Answer: C

17. Dehydration results from:

A. Excess water intake

B. Loss of body fluids

C. High vitamin intake

D. Low protein intake

Answer: B

18. Oedema refers to:

A. Water loss

B. Fluid accumulation

C. Protein deficiency

D. Fat accumulation

Answer: B

19. Sodium mainly regulates:

A. Intracellular fluid

B. Extracellular fluid

C. Bone density

D. Hemoglobin

Answer: B

20. Potassium is important for:

A. Bone formation

B. Intracellular balance

C. Blood clotting

D. Vision

Answer: B

21. Thiamine deficiency causes:

A. Scurvy

B. Beriberi

C. Rickets

D. Pellagra

Answer: B

22. Riboflavin deficiency leads to:

A. Cheilosis

B. Anemia

C. Blindness

D. Edema

Answer: A

23. Niacin deficiency causes:

A. Beriberi

B. Pellagra

C. Scurvy

D. Rickets

Answer: B

24. Vitamin B12 deficiency leads to:

- A. Night blindness
- B. Pernicious anemia
- C. Scurvy
- D. Rickets

Answer: B

25. Vitamin C deficiency causes:

- A. Pellagra
- B. Scurvy
- C. Rickets
- D. Beriberi

Answer: B

II. PART B: Fill in the Blanks

1. Excess fat accumulation is called **obesity**.
2. Severe weight loss condition is called **cachexia**.
3. Gaucher's disease is due to deficiency of **glucocerebrosidase**.
4. Niemann-Pick disease involves accumulation of **sphingomyelin**.
5. Tay-Sachs disease results from deficiency of **hexosaminidase A**.
6. Fabry's disease is caused by deficiency of **alpha-galactosidase A**.
7. Increased lipoproteins in blood is called **hyperlipoproteinemia**.
8. During starvation, energy is mainly derived from **fat**.
9. Vitamin A is stored in the **liver**.
10. Night blindness is caused by deficiency of **vitamin A**.
11. Vitamin D is also called the **sunshine vitamin**.
12. Vitamin D deficiency causes **rickets**.
13. Vitamin E acts as an **antioxidant**.
14. Vitamin K is necessary for **blood clotting**.

15. The human body contains about **60%** water.
16. Loss of body fluids leads to **dehydration**.
17. Excess fluid accumulation is called **oedema**.
18. Sodium regulates **extracellular** fluid balance.
19. Potassium regulates **intracellular** fluid balance.
20. Thiamine deficiency causes **beriberi**.
21. Riboflavin deficiency leads to **cheilosis**.
22. Niacin deficiency causes **pellagra**.
23. Vitamin B12 deficiency causes **pernicious anemia**.
24. Folic acid deficiency leads to **megaloblastic anemia**.
25. Vitamin C deficiency causes **scurvy**.

III. Descriptive questions

1. Write about water soluble vitamins

2. Write about Water functions distribution requirements

3. Discuss about role of solutes (Sodium and Potassium) in maintaining the volume of the fluid compartments

4. Define Calcium Explain absorption, utilization, sources, functions and deficiency.

5. Define Iron: Explain Functions, sources, absorption, transport, utilization and storage of iron.