

**SSR DEGREE AND PG COLLEGE AUTONOMOUS NIZAMABAD**  
**DEPARTMENT OF NUTRITION**  
**SEM-II INTERNAL QUESTION BANK- 1**  
**PAPER- NUTRITIONAL BIOCHEMISTRY AND HUMAN PHYSIOLOGY**

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**I. MULTIPLE CHOICE QUESTIONS**

**1. Glycolysis occurs in the**

- a) Mitochondria
- b) Nucleus
- c) Cytoplasm
- d) Ribosome

**Answer:** c) Cytoplasm

**2. The end product of glycolysis is**

- a) Acetyl CoA
- b) Pyruvate
- c) Lactate
- d) Glucose

**Answer:** b) Pyruvate

**3. Citric acid cycle takes place in**

- a) Cytoplasm
- b) Ribosome
- c) Mitochondria
- d) Nucleus

**Answer:** c) Mitochondria

**4. Formation of glycogen from glucose is called**

- a) Glycogenolysis
- b) Gluconeogenesis
- c) Glycogenesis
- d) Glycolysis

**Answer:** c) Glycogenesis

**5. Breakdown of glycogen into glucose is**

- a) Glycogenesis
- b) Glycogenolysis
- c) Glycolysis
- d) Lipolysis

**Answer:** b) Glycogenolysis

**6. Gluconeogenesis mainly occurs in the**

- a) Kidney
- b) Muscle
- c) Liver
- d) Brain

**Answer:** c) Liver

**7. The basic unit of protein is**

- a) Fatty acid
- b) Glucose
- c) Amino acid
- d) Glycerol

**Answer:** c) Amino acid

**8. Transamination involves transfer of**

- a) Carbon group
- b) Amino group
- c) Methyl group
- d) Phosphate group

**Answer:** b) Amino group

**9. Urea is formed in the**

- a) Kidney
- b) Liver
- c) Lung
- d) Brain

**Answer:** b) Liver

**10. Essential fatty acids must be obtained from**

- a) Liver
- b) Body synthesis
- c) Diet
- d) Muscles

**Answer:** c) Diet

**11. Beta-oxidation is the breakdown of**

- a) Carbohydrates
- b) Proteins
- c) Fatty acids
- d) Vitamins

**Answer:** c) Fatty acids

**12. Water-soluble vitamins are**

- a) Stored in body

- b) Fat soluble
- c) Excreted in urine
- d) Toxic

**Answer:** c) Excreted in urine

**13. Fat-soluble vitamins include**

- a) B and C
- b) A, D, E, K
- c) B<sub>1</sub>, B<sub>2</sub>
- d) C only

**Answer:** b) A, D, E, K

**14. Iron is a**

- a) Macro mineral
- b) Micro mineral
- c) Electrolyte
- d) Vitamin

**Answer:** b) Micro mineral

**15. Intracellular fluid is rich in**

- a) Sodium
- b) Chloride
- c) Potassium
- d) Calcium

**Answer:** c) Potassium

**16. Extracellular fluid is rich in**

- a) Potassium
- b) Magnesium
- c) Sodium
- d) Phosphate

**Answer:** c) Sodium

**17. Normal blood pH is**

- a) 6.8
- b) 7.0
- c) 7.35–7.45
- d) 8.0

**Answer:** c) 7.35–7.45

**18. Enzymes are mainly**

- a) Lipids
- b) Carbohydrates

- c) Proteins
- d) Vitamins

**Answer:** c) Proteins

**19. The lock and key model explains**

- a) Digestion
- b) Absorption
- c) Enzyme action
- d) Respiration

**Answer:** c) Enzyme action

**20. Which is NOT a function of water?**

- a) Temperature regulation
- b) Solvent
- c) Energy production
- d) Transport

**Answer:** c) Energy production

**II. FILL IN THE BLANKS**

1. Glycolysis is the breakdown of \_\_\_\_\_ into pyruvate.  
**Answer:** Glucose
2. TCA cycle is also known as \_\_\_\_\_ cycle.  
**Answer:** Krebs
3. Glycogen is stored in the \_\_\_\_\_ and \_\_\_\_\_.  
**Answer:** Liver, muscles
4. Formation of glucose from non-carbohydrate sources is called \_\_\_\_\_.  
**Answer:** Gluconeogenesis
5. The building blocks of proteins are \_\_\_\_\_.  
**Answer:** Amino acids
6. Removal of amino group is called \_\_\_\_\_.  
**Answer:** Deamination
7. Urea is excreted through the \_\_\_\_\_.  
**Answer:** Kidneys
8. Essential fatty acids cannot be synthesized by the \_\_\_\_\_.  
**Answer:** Body
9. Beta-oxidation occurs in the \_\_\_\_\_.  
**Answer:** Mitochondria
10. Carbohydrates contain carbon, hydrogen and \_\_\_\_\_.  
**Answer:** Oxygen
  
11. Vitamins A, D, E and K are \_\_\_\_\_ soluble vitamins.  
**Answer:** Fat
12. Vitamin C deficiency causes \_\_\_\_\_.  
**Answer:** Scurvy
13. Iron deficiency causes \_\_\_\_\_.  
**Answer:** Anemia

14. Calcium is important for \_\_\_\_\_ and teeth.

**Answer:** Bones

15. Fluid inside the cell is called \_\_\_\_\_ fluid.

**Answer:** Intracellular

16. Fluid outside the cell is called \_\_\_\_\_ fluid.

**Answer:** Extracellular

17. Movement of water depends on \_\_\_\_\_ pressure.

**Answer:** Osmotic

18. Acid-base balance maintains the \_\_\_\_\_ of blood.

**Answer:** pH

19. Enzymes lower the \_\_\_\_\_ energy of reactions.

**Answer:** Activation

20. Enzymes are highly \_\_\_\_\_ in nature.

**Answer:** Specific

### **III.DESCRIPTIVE QUESTIONS**

**1. Describe the Carbohydrate composition, classification, sources, Function, deficiency and excess.**

**2. Write Lipids composition, classification, sources, Function deficiency and excess**

**3. Write Protein composition, classification, sources, Function deficiency and excess**

**4. Describe the Vitamins classification, sources, functions and deficiency symptoms of fat soluble and water-soluble vitamins**

**5. Describe minerals classification, sources, functions and deficiency symptoms of macro and micro minerals**