

BIOCHEMISTRY AND CLINICAL PATHOLOGY

Time Allowed : 3.00 Hours

Maximum Marks : 80

- Notes:** (i) Attempt all questions.
 (ii) Students are advised to specially check the numerical data of question paper in both versions. If there is any difference in Hindi translation of any question, the students should answer the question according to the English version.
 (iii) Use of Pager and Mobile Phone by the students is not allowed.

Part - A**Note :** Answer any six questions. Each question carries equal marks.

[6x5=30]

- Q.1. Define Carbohydrates and discuss its classification with example.
 Q.2. Write down the definition and classification of Amino-acids with example.
 Q.3. Discuss type, functions, recommended daily requirements of Minerals along with the diseases caused by their deficiency
 Q.4. Discuss Electrolyte composition of the body Fluids. Write a note on dietary intake of electrolytes and Electrolyte balance.
 Q.5. Discuss the role of Lymphocytes and Platelets in health and disease.
 Q.6. Discuss functions of Kidney and Routinely performed test to assess the functions of Kidney and their clinical significance.
 Q.7. Define Purine and Pyrimidine bases. Draw the structure of DNA and discuss its functions.

Part - B**Note :** Answer any ten questions. Each question carries equal marks.

[10x3=30]

- Q.1. Write short note on Biotechnology.
 Q.2. Write short note on Cell and its Biochemical organisation.
 Q.3. Define erythrocytes and its significance.
 Q.4. Define Co-enzymes and its functions.
 Q.5. Functions of Cholesterol in the body.
 Q.6. Discuss diseases related to Malnutrition of Protein.
 Q.7. Write short note on Oral Rehydration Therapy.
 Q.8. Write short note on Urea cycle.
 Q.9. Discuss Enzymes in short.
 Q.10. Abnormal constituents of Urine and their significance.
 Q.11. Write short note on Protein Deficiency diseases.

Part - C**Note :** Multiple Choice Questions/Fill in the blanks. Answer all questions. Each question carries equal marks.

[20x1=20]

Q.1. Common table sugar is :

- | | |
|-------------|--------------|
| (a) Sucrose | (b) Lactose |
| (c) Glucose | (d) Fructose |

- Q.2. Glycogen in animals are stored in :
- (a) Liver and Bile (b) Liver and Spleen
(c) Liver and Adipose tissue (d) Liver and Muscle
- Q.3. How many amino acids made up a protein ?
- (a) 20 (b) 10
(c) 30 (d) 50
- Q.4. On hydrolysis protein give :
- (a) Alcohol (b) Fatty acid
(c) Amino acid (d) Corboxylic acid
- Q.5. In which solvent lipids are insoluble ?
- (a) Chloroform (b) Water
(c) Ether (d) All of the above
- Q.6. Ferritin is :
- (a) Milk protein (b) Iron storage protein
(c) Egg white protein (d) None of the above
- Q.7. Which of the following is a saturated Fatty acid ?
- (a) Palnucic acid (b) Oleic acid
(c) Linolenic acid (d) Linoleic acid
- Q.8. Vitamin is essential for formation of Rhodopsin :
- (a) Vitamin E (b) Folic acid
(c) Retinol (d) Vitamin C
- Q.9. Syntoms of Gaucher's disease :
- (a) Liver and Spleen enlargement (b) Bone erosion
(c) Mental retardation (d) All of the above
- Q.10. Function of Chlorine :
- (a) Acid-base balance (b) Osmotic balance
(c) Both (a) and (b) (d) None of the above

Fill in the blanks :

- Q.11. Rickets and Osteomalacia is caused due to deficiency of.....
- Q.12. Qualitative test for lipid.....
- Q.13. Microcytic anaemia has.....sized RBCs.
- Q.14. RNA stands for.....
- Q.15. Camuba wax is.....wax.

True/False :

- Q.16. Hepatic porphyria is caused due to deficiency of Zinc. (True/False)
- Q.17. Fats are liquid at room temperature. (True/False)
- Q.18. Kwashiorkor occurs due to Protein deficiency. (True/False)
- Q.19. Protein is a Sulphur containing B complex vitamin. (True/False)
- Q.20. Thrombocytopenia is defined as increased platelets. (True/False)