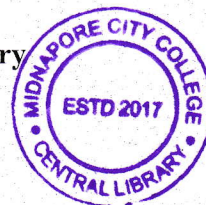


The West Bengal University of Health Sciences
B.Sc. in Medical Microbiology 2nd Semester September, 2023
Examination

Subject : Basics of Biochemistry

Time : 2 hrs.



Full Marks : 50

Attempt all questions

1. Choose the correct answer : 10 x 1
- a) Example of non-reducing sugar is :
 i) Glucose. ii) Sucrose. iii) Fructose. iv) Galactose.
- b) Glucose and galactose are epimers at carbon :
 i) 2. ii) 3. iii) 4. iv) 6.
- c) Example of super secondary structure of protein is :
 i) α -helix. ii) β -pleated sheet. iii) $\beta\alpha\beta$ motif. iv) Turn.
- d) Aldolase belongs to which enzyme class?
 i) Isomerase. ii) Transferase. iii) Ligase. iv) Lyase.
- e) Aromatic ring containing amino acid is :
 i) Lysine. ii) Leucine. ii) Phenylalanine. iv) Valine.
- f) Pellagra is caused due to deficiency of:
 i) Vitamin B1. ii) Vitamin C. iii) Vitamin B3. iv) Vitamin D.
- g) In nucleoside there is absence of :
 i) Pentose sugar. ii) Phosphate group. iii) Nitrogenous base. iv) Sugar.
- h) Which vitamin is water soluble?
 i) Vitamin A. ii) Vitamin B12. iii) Vitamin D. iv) Vitamin K.
- i) Another name of Phosphatidylcholine is :
 i) Cephalin. ii) Lecithin. iii) Cardioplin. iv) Sphingosine.
- j) 10.4 bp/turn is present in case of :
 i) A DNA. ii) Z DNA. iii) B DNA. iv) Watson-Crick DNA.
2. Answer **any four** of the following questions : 4 x 2
- a) Mention any two properties of fatty acid.
 b) What is K_m ?
 c) Write down any two functions of vitamin D.
 d) What is reducing sugar?
 e) What is Z DNA?
 f) What is Multiple Myeloma?
3. Answer **any four** of the following questions : 4 x 4
- a) Write a short note on Pernicious anaemia.
 b) Describe the reaction of osazone formation.
 c) Discuss the factors affecting enzyme action.
 d) Describe the structure of β -pleated sheet.
 e) Discuss the factors which increase calcium absorption.
 f) Classify lipoproteins.
4. Answer **any two** of the following questions:
- a) Which vitamin deficiency leads to Scurvy? Mention the sources and functions of that vitamin. 1+7
- b) What is nucleotide? Describe the Watson-Crick Model of DNA helix. 2+6
- c) What is Microcytic anaemia? Discuss the factors inhibiting iron absorption. 3+5