

23124

3 Hours / 80 Marks



20223

Seat No.

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- Instructions* –
- (1) All Questions are Compulsory.
 - (2) Answer each next main Question on a new page.
 - (3) Figures to the right indicate full marks.
 - (4) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.
 - (5) In case student has attempted sub-question of Question No. 3 more than once, only first attempt should be considered for assessment.

Marks

- 1. Attempt any SIX of the following :** **30**
- a) Explain the various structural levels of proteins.
 - b) Discuss the pathway for the conversion of glucose to pyruvate.
 - c) Explain the mechanism of action of enzymes with various theories.
 - d) Explain Kreb's cycle.
 - e) What is dehydration? What are the causes of dehydration? Write a note on ORS.
 - f) Enlist various functions of the liver. What are the routinely performed tests for assessing the functions of the liver?
 - g) Define Lipids. Write about the structure and functions of Cholesterol in the body. Enlist any two properties of triglycerides.
- 2. Attempt any TEN of the following :** **30**
- a) Draw structure of any three reducing monosaccharides.
 - b) Define carbohydrates. Classify them.
 - c) What are nucleosides and nucleotides?
 - d) Enlist factors affecting enzyme action.
 - e) Explain ETC chain.
 - f) Write the functions of Calcium and its deficiency diseases.
 - g) Which pathological conditions are observed due to abnormal constituents in urine?
 - h) Discuss Glycogenesis.
 - i) What is Lymphocytosis, Lymphocytopenia, Phenylketonuria?
 - j) Write the functions of any three fat soluble vitamins.
 - k) Discuss diseases related to abnormal carbohydrate metabolism.
- 3. Attempt the following :** **20**
- a) Define Anemia.
 - b) Which of the following is a sulphur containing amino acid.
 - i) Alanine
 - ii) Glycine
 - iii) Methionine
 - iv) Valine.
 - c) Enlist any two routinely performed Kidney function tests.
 - d) Name any two lipid profile tests.

P.T.O.



- e) What are the coenzymes of Riboflavin and Nicotinic acid.
- f) Which of the following diseases is caused by the deficiency of Niacin?
- Scurvy
 - Rickets
 - Pellagra
 - Pernicious anaemia.
- g) Explain “Fatty liver”.
- h) Alkaptonuria is a disease related to
- i) Define Essential Amino acids.
- j) When glucose reacts with bromine water it forms –
- Glutaric acid
 - Glyceraldehyde
 - Saccharic acid
 - Gluconic acid
- k) Name any two diseases due to malnutrition of proteins.
- l) Which of the following is essential fatty acid has three double bond?
- Linolenic acid
 - Arachidonic acid
 - Linoleic acid
 - Clupanodonic acid.
- m) Stearic acid has Carbon atoms.
- n) Name of Vitamin A is
- o) Hypercholesterolemia is caused due to
- p) Write full form of SGOT and SGPT.
- q) Jaundice is a symptom of disease. True or False.
- r) What is the significance of BUN.
- s) Chloride and Bicarbonate ions occur predominantly in
- t) Identify the purine base of nucleic acids in the following –
- Cytosine
 - Thymine
 - Uracil
 - Adenine.
