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DF-3037
Second Year B. Sc. (Medical Technology)
(Sem. III) Examination
March / April – 2016
MT-07 : General Biochemistry - I

Time : 2 Hours]

[Total Marks : 50

Instructions :

(1)

<p>નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : SECOND YEAR B. Sc. (MEDICAL TECHNOLOGY) (SEM. 3)</p> <p>Name of the Subject : MT-07 : GENERAL BIOCHEMISTRY - 1</p> <p>Subject Code No. : 3 0 3 7 Section No. (1, 2,.....) : Nil</p>	<p>Seat No. : <input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/></p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; width: 100%;">Student's Signature</div>
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- (2) This exam contains 50 multiple choice questions, each worth 1 mark.
- (3) Choose only ONE most appropriate answer per question.
- (4) Do not crease or fold the answer sheet.

***O.M.R. Sheet ભરવા અંગેની અગત્યની સૂચનાઓ આપેલ
O.M.R. Sheet-ની પાછળ છાપેલ છે.***

***Important instructions to fillup O.M.R. Sheet
is given on back side of the provided O.M.R. Sheet.***

- 1 Enzymes, which are produced in inactive form in the living cells, are called:
- (A) Lysozymes
 - (B) Apoenzymes
 - (C) Proenzymes
 - (D) Papain
- 2 Lyases are present in class _____.
- (A) 3
 - (B) 4
 - (C) 6
 - (D) 1
- 3 Fischer's 'lock and key' model of the enzyme action implies that
- (A) The active site is complementary in shape to that of substance
 - (B) Substrates change conformation prior to active site interaction
 - (C) The active site is flexible and adjusts to substrate
 - (D) The active site is complementary in shape to that of substance only after interaction.
- 4 Inolase inhibition by fluoride is an example of,
- (A) Reversible Non competitive inhibition
 - (B) Irreversible Non competitive inhibition
 - (C) Irreversible competitive inhibition
 - (D) Reversible competitive inhibition
- 5 Enzyme involved in joining together two substrates is :
- (A) Aldolase
 - (B) Gunaine deaminase
 - (C) Arginase
 - (D) Glutamine synthetase

- 6 A coenzyme containing aromatic hetero ring is :
- (A) Lipoic acid
 - (B) Coenzyme Q
 - (C) Biotin
 - (D) TPP
- 7 Lineweaver — Burk double reciprocal plot is related to
- (A) Enzyme activity
 - (B) Temperature
 - (C) Both Substrate concentration and Enzyme activity
 - (D) Substrate concentration
- 8 In neutral fats, the unsaponifiable matter includes :
- (A) Triacylglycerol
 - (B) Phospholipids
 - (C) Cholesterol
 - (D) Hydrocarbons
- 9 LDH have _____ isoenzymes.
- (A) 5
 - (B) 6
 - (C) 8
 - (D) 4
- 10 Trypsin and Chymotrypsin are example showing _____ specificity.
- (A) Reaction
 - (B) Substrate
 - (C) Group relative substrate
 - (D) Optical

- 11 Following is not a triose sugar :
- (A) Ribose
 - (B) Erythrose
 - (C) All of these
 - (D) Fructose
- 12 The smallest monosaccharide having furanose ring structure is :
- (A) Ribose
 - (B) Glucose
 - (C) Fructose
 - (D) Erythros
- 13 Iodine gives a red colour with :
- (A) Dextrin
 - (B) Glycogen
 - (C) Inulin
 - (D) Starch
- 14 Amylose is a constituent of :
- (A) Cellulose
 - (B) Glycogen
 - (C) None of these
 - (D) Starch
- 15 Tautomerism is :
- (A) Shift of carbon
 - (B) Shift of both
 - (C) None of these
 - (D) Shift of hydrogen
- 16 Glycosides are found in many :
- (A) Drugs
 - (B) Minerals
 - (C) Nucleoproteins
 - (D) Vitamins
- 17 Cellulose is made up of the molecules of :
- (A) β glucose
 - (B) Both α glucose and β glucose
 - (C) None of these
 - (D) α glucose

- 18 Iodine solution produces no color with :
(A) Starch
(B) Erythroextrin
(C) Glycogen
(D) Cellulose
- 19 N-acetylneuraminic acid is an example of :
(A) Mucic acid
(B) Glucuronic acid
(C) Hippuric acid
(D) Sialic acid
- 20 Following is a specific test for ketohexoses :
(A) Osazone test
(B) Molisch test
(C) None of these
(D) Seliwanoff's test
- 21 α -D-Glucose and β -D-glucose are related by :
(A) Anomers
(B) Multirotation
(C) Ketoenol pair
(D) Epimers
- 22 On boiling Benedict's solution is not reduced by :
(A) Lactose
(B) Maltose
(C) Sucrose
(D) Fructose
- 23 Starch and glycogen are polymers of :
(A) Mannose
(B) α -D-Glucose
(C) Galactose
(D) Fructose
- 24 Following is not an example of compound lipid :
(A) Sulfolipid
(B) Fatty acid
(C) Phospholipid
(D) Glycolipid

- 25 Deterioration of food (rancidity) is not prevented by :
- (A) Vitamin E
 - (B) Vitamin D
 - (C) All of these
 - (D) Phenol
- 26 Lecithin contains _____ as a nitrogenous compound.
- (A) Choline
 - (B) Ethanol amine
 - (C) Inositol
 - (D) Serine
- 27 PUFA can take up _____ number of Hydrogens by Hydrogenation process.
- (A) 2
 - (B) >2
 - (C) None
 - (D) 1
- 28 Free fatty acids are transported in the blood :
- (A) Combined with globulin
 - (B) Combined with β -lipoprotein
 - (C) In unbound free salts
 - (D) Combined with albumin
- 29 In 50% of cholesterol esters contain _____ as a fatty acid.
- (A) Arachidonic acid
 - (B) Linolenic acid
 - (C) Linoleic acid
 - (D) Palmitic acid
- 30 Acroleic test is given by :
- (A) Glycerol
 - (B) Glycosides
 - (C) Sphingol
 - (D) Cholesterol

- 31 Esters of fatty acids with higher alcohol other than glycerol are called as:
 (A) Polyesters (B) Waxes
 (C) Terpenoids (D) Oils
- 32 Oligosaccharide contains,
 (A) 3 to 10 carbons
 (B) 3 to 10 sugars
 (C) All of these
 (D) >2Carbons
- 33 Following is not an example of reducing sugar :
 (A) Trehlose (B) Maltose
 (C) None of these (D) Glucose
- 34 Lysolecithin and fatty acid is formed due to breakdown of lecithin by which enzyme ?
 (A) Phospholypase A₂
 (B) Phospholypase C
 (C) Phospholypase D
 (D) Phospholypase A₁
- 35 Fat is stored in our body in,
 (A) Kidney
 (B) Adipose tissue
 (C) Blood
 (D) Liver
- 36 Which lipid is helpful in vision ?
 (A) Bile salt
 (B) Dipalmityl lecithin
 (C) Docosahaxanoic acid
 (D) Phospholipid
- 37 Derived lipids are obtained from hydrolysis of,
 (A) Simple lipid
 (B) Compound lipid
 (C) All of these
 (D) TG
- 38 A body of 70 kg person contains _____ TG which provides _____ energy.
 (A) 11 Kg and 100,000 cal
 (B) 11 Kg and 100,000 Kcal
 (C) 11 gm and 100,000 cal
 (D) 11 gm and 100,000 Kcal
- 39 Enzymes involve in enzymatic estimation of TG are,
 (A) Oxidase (B) Kinase
 (C) All of these (D) Lipase
- 40 Wax contains unsaturated fatty acid on carbon number,
 (A) 2 (B) 3
 (C) None (D) 1

- 41 The optically inactive amino acid is :
- (A) Serine (B) Threonine
(C) Valine (D) Glycine
- 42 Proteins contain mostly :
- (A) D-amino acids
(B) DL-Amino acids
(C) Both L- α - amino acids and D-amino acids
(D) L- α - amino acids
- 43 _____ is an aromatic amino acid.
- (A) Tyrosine (B) Taurine
(C) Arginine (D) Lysine
- 44 Which amino acid is known as helix breaker ?
- (A) Proline
(B) Leucine
(C) Phenyl alanine
(D) Alanine
- 45 Non essential amino acids are,
- (A) synthesized in the body
(B) not important in the metabolism
(C) not synthesized in the body
(D) not a components of tissue proteins
- 46 Ninhydrin test is positive with :
- (A) α -Amino acids
(B) Serotonin
(C) glycosidic bond
(D) Peptide bond
- 47 An example of polar amino acid with positive charge on R group is :
- (A) Leucine
(B) Arginine
(C) Valine
(D) Alanine
- 48 An example of metalloprotein is :
- (A) Ceruloplasmin
(B) Gelatin
(C) Salmine
(D) Casein
- 49 In α -helix, the hydrogen bond is observed between _____ and _____ amino acid.
- (A) 1 and 3
(B) 1 and 4
(C) I and 5
(D) I and 2
- 50 Haemoglobin contains _____ polypeptide chains.
- (A) 2 (B) 3
(C) 4 (D) 1