

**A**

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"/><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 Following is not a triose sugar :
 - (A) Fructose
 - (B) Ribose
 - (C) Erythrose
 - (D) All of these

- 2 The smallest monosaccharide having furanose ring structure is :
 - (A) Erythros
 - (B) Ribose
 - (C) Glucose
 - (D) Fructose

- 3 Iodine gives a red colour with :
 - (A) Starch
 - (B) Dextrin
 - (C) Glycogen
 - (D) Inulin

- 4 Amylose is a constituent of :
 - (A) Starch
 - (B) Cellulose
 - (C) Glycogen
 - (D) None of these

- 5 Tautomerism is :
 - (A) Shift of hydrogen
 - (B) Shift of carbon
 - (C) Shift of both
 - (D) None of these

- 6 Glycosides are found in many :
 - (A) Vitamins
 - (B) Drugs
 - (C) Minerals
 - (D) Nucleoproteins

- 7 Cellulose is made up of the molecules of :
 - (A) α glucose
 - (B) β glucose
 - (C) Both α glucose and β glucose
 - (D) None of these

- 8 Iodine solution produces no color with :
(A) Cellulose
(B) Starch
(C) Erythro-dextrin
(D) Glycogen
- 9 N-acetylneuraminic acid is an example of :
(A) Sialic acid
(B) Mucic acid
(C) Glucuronic acid
(D) Hippuric acid
- 10 Following is a specific test for ketohexoses :
(A) Seliwanoff's test
(B) Osazone test
(C) Molisch test
(D) None of these
- 11 α -D-Glucose and β -D-glucose are related by :
(A) Epimers
(B) Anomers
(C) Mutarotation
(D) Keto-enol pair
- 12 On boiling Benedict's solution is not reduced by :
(A) Fructose
(B) Lactose
(C) Maltose
(D) Sucrose
- 13 Starch and glycogen are polymers of :
(A) Fructose
(B) Mannose
(C) α -D-Glucose
(D) Galactose
- 14 Following is not an example of compound lipid :
(A) Glycolipid
(B) Sulfolipid
(C) Fatty acid
(D) Phospholipid

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

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

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

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

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