

**B**

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>
---	---

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

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

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

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

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

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

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