Program: SE Biotechnology
Curriculum Scheme: Rev 2016
Examination: Second Year Semester III
Course Code: BTC304 and Course Name: Biochemistry

Time: 1 hour Max. Marks: 50

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Q.1	A lipid bilayer is permeable to
Option A:	Urea
Option B:	Fructose
Option C:	Glucose
Option D:	Potassium
Q.2	A triose sugar is
Option A:	Glycerose
Option B:	Ribose
Option C:	Erythrose
Option D:	Fructose
Q.3	The number of isomers of glucose is
Option A:	2
Option B:	4
Option C:	8
Option D:	16
Q.4	The reaction succinyl COA to succinate requires
Option A:	CDP
Option B:	ADP
Option C:	GDP
Option D:	NADP+
Q.5	During glycolysis, Fructose 1, 6 diphosphate is decomposed by the enzyme:
Option A:	Enolase a
Option B:	Fructokinase
Option C:	Aldolase
Option D:	Diphosphofructophosphatose
Q.6	The conversion of pyruvate to acetyl CoA and CO2
Option A:	Is reversible
Option B:	Involves the participation of lipoic acid
Option C:	Depends on the coenzyme biotin
Option D:	Occurs in the cytosol
Q.7	Starch and glycogen are polymers of
Option A:	Fructose

Option B:	Mannose
Option C:	α−D-Glucose
Option D:	Galactose
Q.8	All the following are sulphur containing amino acids found in proteins except
Option A:	Cysteine
Option B:	Cystine
Option C:	Methionine
Option D:	Threonine
Q.9	An amino acid that does not form an αhelix is
Option A:	Valine
Option B:	Proline
Option C:	Tyrosine
Option D:	Tryptophan
Q.10	At the lowest energy level α-helix of polypeptide chain is stabilized
Option A:	By hydrogen bonds formed between the H of peptide N and the carbonyl O of the residue
Option B:	Disulphide bonds
Option C:	Non polar bonds
Option D:	Ester bonds
Q.11	In a protein molecule the disulphide bond is not broken by
Option A:	Reduction
Option B:	Oxidation
Option C:	Denaturation
Option D:	X-ray diffraction
Q.12	The main sites for oxidative deamination are
Option A:	Liver and kidney
Option B:	Skin and pancreas
Option C:	Intestine and mammary gland
Option D:	Lung and spleen
Q.13	The cholesterol molecule is
Option A:	Benzene derivative
Option B:	Quinoline derivative
Option C:	Steroid
Option D:	Straight chain acid
Q.14	In mammals, the major fat in adipose tissues is
Option A:	Phospholipid
Option B:	Cholesterol
Option C:	Sphingolipids

Option D:	Triacylglycerol
Q.15	The major lipid in chylomicrons is
Option A:	Triglycerides
Option B:	Phospholipids
Option C:	Cholesterol
Option D:	Free fatty acids
Q.16	β-Oxidation of fatty acids requires all the following coenzymes except
Option A:	CoA
Option B:	FAD
Option C:	NAD
Option D:	NADP
Q.17	Oxidation of fatty acids occurs
Option A:	In the cytosol
Option B:	In the matrix of mitochondria
Option C:	On inner mitochondrial membrane
Option D:	On the microsomes
Q.18	Chemically, lipoic acid is
Option A:	Saturated fatty acid
Option B:	Unsaturated fatty acid
Option C:	Amino acid
Option D:	Sulphur containing fatty acid
Q.19	Vitamin B1 coenzyme (TPP) is involved in
Option A:	Oxidative decarboxylation
Option B:	Hydroxylation
Option C:	Transamination
Option D:	Carboxylation
Q.20	In enzyme kinetics Km implies
Option A:	The substrate concentration that gives one half Vmax
Option B:	The dissocation constant for the enzyme substrate comples
Option C:	Concentration of enzyme
Option D:	Half of the substrate concentration required to achieve Vmax
Q.21	Coenzymes are
Option A:	Heat stable, dialyzable, non protein organic molecules
Option B:	Soluble, colloidal, protein molecules
Option C:	Structural analogue of enzymes
Option D:	Different forms of enzymes
Q.22	Isoenzymes are
Option A:	Chemically, immunologically and electrophoretically different forms of an

	enzyme
Option B:	Different forms of an enzyme similar in all properties
Option C:	Catalysing different reactions
Option D:	Having the same quaternary structures like the enzymes
Q.23	Enzymes which catalyse binding of two substrates by covalent bonds are known as
Option A:	Lyases
Option B:	Hydrolases
Option C:	Ligases
Option D:	Oxidoreductase
Q.24	Vasopressin is also known as
Option A:	Antidiabetogenic hormone
Option B:	Antidiuretic hormone
Option C:	Somatotropic hormone
Option D:	Pitoxin
Q.25	A nucleotide consists of
Option A:	Nitrogenous base
Option B:	Purine or pyrimidine base + sugar
Option C:	Purine or pyrimidine base + phosphorous
Option D:	Purine or pyrimidine base + sugar + phosphorous