Roll No. | | | | | | | | | | | | | Total No. of Pages : 03

Total No. of Questions : 13

B.Pharma (2017 & Onwards) (Sem.-2)

BIOCHEMISTRY

Subject Code : BP-203T

M.Code : 74969

Time : 3 Hrs. Max. Marks : 75

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains THREE questions carrying TEN marks each and student has to attempt any TWO questions.**
3. **SECTION-C contains NINE questions carrying FIVE marks each and student has to attempt any SEVEN questions.**

SECTION-A

Q1. Answer briefly :

a) Amino acid residues present in protein are…….. amino acids.

i. α ii. β iii. γ iv. δ

b) Formation of cyclic structure of glucose from open chain structure is an example of……

i. Nucleophilic addition ii. Formation of hemi-acetal

iii. Formation of acetal iv. i and ii

c) Sphingomylein is a derivative of .

i. Sphingosine ii. Ceramide iii. Phosphotidic acid iv. i and ii.

d) For C_α-C bond in backbone of protein, the bond angle resulting from rotation at C_α is labeled as

i. Φ ii. Ψ iii. θ iv. i and ii both

e) The successive nucleotides in DNA are linked through …… bridge.

i. Phosphodiester ii. Amide iii. Glycosidic iv. None of these

f) transports free fatty acid from cytosol to mitochondria.

i. Carnitine shuttle ii. Citrate shuttle

iii. Both i and ii iv. Neither i nor ii

g) ATP is .

i. Nucleotide

ii. Energy link between anabolism and catabolism

iii. Hydrolysed with positive ΔG

iv. All of the above

h) ……is an essential amino acid.

i. Lysine ii. Tyrosine iii. Glycine iv. Alanine.

i) Transfer of amino acid to a keto acid is known as

i. Transamination ii. Deamination

iii. Transdeamination iv. i and iii both.

j) Myocardial infarction can be diagnosed by isoenzyme of

i. LDH ii. ALP iii. SGOT iv. ACP

SECTION-B

Q2 Give outline for gluconeogenesis. Explain its biochemical significance.

Q3 Describe the *de novo* synthesis of pyrimidine nucleotides. Comment on hyperuricemia.

Q4 Give IUB system of enzyme classification. Discuss the two diagnostic applications of isoenzymes citing suitable examples.

SECTION-C

Q5 Explain various types of stereoisomerism present in monosaccharides.

Q6 Explain the mechanism of oxidative phosphorylation.

Q7 Describe the various steps involved in β-oxidation.

Q8 Describe biosynthesis of catecholamines from tyrosine catabolism.

Q9 Discuss the biochemical causes of jaundice.

Q10 Describe reactions of Kreb-Henseleit cycle.

Q11 Describe post transcriptional modifications in primary transcripts of mRNA.

Q12 Give outline for the conversion of cholesterol to adrenal cortex hormone.

Q13 Give structure and biochemical significance of co-enzymes derived from Vitamin B2.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.