CLASS: BPHARM   SEMESTER :II
BRANCH: PHARMACY   SESSION : SP/19

SUBJECT: BP203T BIOCHEMISTRY

TIME: 3.00 Hrs   FULL MARKS: 75

INSTRUCTIONS:
1. The missing data, if any, may be assumed suitably.
2. Before attempting the question paper, be sure that you have got the correct question paper.
3. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
4. This question paper consists of (03) three parts. Read the part wise instructions before
   attempting the questions..

PART-I
Objective types questions (Instruction: Answer all questions)
Q1.   (10 x 2 = 20 Marks)

   A. For a spontaneous reaction, Gibb's Free energy is_____ and Equilibrium constant is _____.
   B. The structure of Alanine is _____.
   C. Name two basic amino acids _____.
   D. During HMP shunt _____and _____are synthesized.
   E. The optimum temperature of an enzyme can be defined as_____.
   F. The total ATP synthesized by the oxidation of one molecule of glucose during Glycolysis is _____
       and during TCA cycle is _____.
   G. The transamination process can be defined as_____.
   H. Two examples of the Isomerase class of enzymes _____-.
   I. The codons that initiates the process of translation are_____.
   J. During Beta oxidation, Palmitic acid releases _____ Acetyl CoA molecules within _____ cycles.

PART-II
Short Answers
(Instruction: Answer seven out of nine questions)

                                                                   (7 x 5 = 35 Marks)

Q2.   Describe the relationship between free energy, enthalpy and entropy.
Q3.   Describe the classification and biological role of carbohydrates.
Q4.   Justify the statement that Gluconeogenesis is not the reversal of Glycolysis.
Q5.   Describe the formation and utilization of Ketone bodies.
Q6.   Explain the enzymatic steps involve in Citric acid cycle.
Q7.   Describe the organization of mammalian genome.
Q8.   Describe the biosynthesis of Pyrimidine nucleotides.
Q9.   Describe the enzymatic steps involved in urea cycle.
Q10.   Describe Lineweaver-Burk Plot and its application.

PART-III
Long Answers
(Instruction: Answer two out of three questions)

                                                                   (2 x 10 = 20 marks)

Q11.   Describe HMP Shunt in detail. Explain the significance of HMP shunt.
Q12.   Define Enzymes. Describe the properties and IUB system of classification of enzymes.
Q13.   Describe the process of Protein translation and its inhibitors.

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