Sem - III (CBSGS) Biochemistry - II 10-12-15 DEC

QP Code : 21750

(3 Hours) **[Total Marks : 70**

N.B. : (1) **All** questions are compulsory

1 (a) _____no of ATP are synthesized in β oxitation of Palmitic acid. 1
(b) Draw the structure of 2 purine bases of DNA 1
(c) Name the initiation codon and it's respective aminoacid. 1
(d) Define 'Glycolysis' and write the role of phospho fructokinase in glycolysis. 2
(e) Name the enzyme used in conversion of pyruvic acid to ethanol. 2
(f) Name two dugs used to descrease serum cholestorol level. 2
(g) Name any two diseases due to disorders of pyrimidine metabolism. 2
(h) What is telomerase name any two drugs inhibiting the same. 2
(i) What is promoter region name any two promoter regions in eucaryotic cells. 2

2. (a) Give the names and structures of the substrates and products of the following enzyme reaction (any **two**) 4
(i) Pyrurate dehydrogenase.
(ii) Lactate dehydroganate.
(iii) HMG CoA lyase.
(b) Write the name of enzyme catalyting following reaction. 4
(i) Fructose to fuctose 6-phosphate
(ii) Ionosine monophosphate to xanthosine monophosphate
(iii) α -D-Glucose-6 phaspate to D - Fructose -6-phosphate.
(iv) Acyl-carnitine to Acyl-CoA
(c) Describe multiprotein complexes in Electron transport chain. 3

3. (a) Describe Energy investment phase and splitting phase of EMP pathway. 4
(b) Write the types and specific functions of DNA polymerase in eucaryotic cell. 4
(c) Explain ketone body synthesis. 3

4. (a) Explain post transcriptional modifications in eucaryotic cell. 4
(b) Write the reactions and enzymes involved in synthesis of AMP and GMP using IMP 4
(c) Explain reactions of β exidation occurring in mitochondrial matrix. 3

5. (a) Describe the process of DNA Sequencing by sanger's method. 4
(b) Explain the process of solid phase peptde synthesis. 4
(c) Explain - Glyoxylate shunt. 3

6. (a) Write note on DNA polymorphism 3
(b) Draw the salvage pathway for purine nucleotide biosynthesis. 3
(c) Differentiate between oxidative and substrate level phosphorylation 3
(d) Enlist the protein synthesis inhibitors which are used as drugs. 2
