BIOCHEMISTRY

Paper – 1

WINTER 2011

(2 ½ hours) **Total marks : 40**

SECTION – B

2. Brief answer questions (any 6 of 7) : **(6x4=24)**

a) Describe any four biochemical functions of nucleotides.

b) Explain malate aspartate shuttle with its significance.

c) Name any two antioxidants enzymes with their functions.

d) Enumerate four examples of abnormal hemoglobins and specify the changes in their amino acid and sequence.

e) Write a note on beneficial and adverse effects of dietary fibres in nutrition.

f) State any four clinical applicatios of recombinant DNA technology.

g) A full term baby born to normal and healthy parents. Her body of pigmentation. The baby had white hair, blue eyes and dispigmented skin. There was no impairment In the eyesight of baby. However baby was unable to tolerate light (photophobia). The parental grandfather of baby had similar problem.

i) Name the disease.

ii) Name the deficient enzyme causing the disease.

iii) Describe the biochemical basis of symptoms observed in child.

SECTION – C

3. Solve (any 2 of 3) : **(2x8=16)**

a) Discuss chemistry, sources, daily requirements, (RDA), physiological functions and deficiency manifestations of Vitamin C (Ascorbic acid).

b) Give the complete account of the factors affecting enzyme activity.

c) Describe the metabolic pathway for synthesis of urea from ammonia. Add a note on metabolic disorders of urea cycle.