Date: 12-01-2011

0819E379

First Year MBBS Examination

I MBBS Biochemistry Paper 2

Time: 3 hours

Max Marks: 50

1. Answer to the points.
2. Figure to the right indicates marks.
3. Use separate answer books for each section.
4. Draw diagrams wherever necessary.
5. Write legibly.

Section 1

1. Give an account of any TWO of the following (10)

a) Inborn errors of Metabolism associated with catabolism of phenylalanine and Tyrosine. (A.292) (C.351)

b) Formation of Tetrahydrofolate and biochemical basis of its role in DNA synthesis. (A. 474)

c) Polymerase chain reaction and its application. (A. 612) (C.594)

2. Write Short notes of (any three) (9)

a) Recombinant DNA (A. 600) (C. 579)

b) Formation of AMP and GMP from IMP (A. 546, 547) (C.390)

c) Nucleosomes (A. 559) (C.79)

d) Structure of t-RNA (A. 578) (C. 81)

e) Mutation (A. 591) (C.535)

3. Discuss Any TWO (6)

a) Biological value of proteins (A. 516) (C. 512)

b) Specific Dynamic action (A. 512) (C.505)

c) Acetyl CoA is a central metabolic molecule (A. 305)

Section 2

4. Write Short notes on (any two) (10)

a) The fate and functions of Methionine and Cysteine (A. 272) (C.358)

b) Formation of peptide bonds and three biologically important peptides (A. 45) (C.53)

c) The absorption and transport of iron (A. 498) (C.414)

5. Write Short notes on (any two) (9)

a) Biochemical functions of pyridoxal phosphate (A. 471) (C.143)

b) Biologically important nucleotides.

c) Wald's visual cycle. (A. 454) (C.129)

d) Biological function of vitamin C (A. 481) (C.132)

e) Folate trap/cycle (A. 478) (C.156)

6. Give your comments with justification of Any SIX (6)

a) Vitamin k in the activation of clotting factors. (A. 461) (C.130)

b) Allopurinol in the treatment of Gout.

c) Methotrexate as anticancer drug.

d) HGPRTase deficiency leads to Lesch-Nyhan syndrome. (C.396)

e) Intrinsic factor (IF) deficiency causes pernicious anemia.

f) Proteins absorb Ultraviolet radiations.

g) Copper deficiency leads to microcytic anemia.

h) Vitamin C leads to defective collagen

synthesis.