

**Date: 15-01-2013**

**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) Describe various steps in recombinant DNA Technology and its application in medical sciences (A. 600) (C. 579)**

**b) How blood calcium homeostasis is**

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**regulated. (A. 493) (C. 407)**

**c) Biologically important molecules synthesized from phenylalanine and tyrosine. (A. 289) (C.348)**

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

**a) Watson-crick model of DNA structure (A. 556) (C.73)**

**b) Functions and deficiency of vitamin C (A. 481) (C.132)**

**c) Mutations (A. 591) (C.535)**

**d) Post translational modifications (A. 584) (C.561)**

**e) Modified nitrogenous bases as anticancer agents (A.546, 551)**

**3. Discuss Any TWO (6)**

**a) Calculate the energy requirement of a**

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**male medical student(A.518)**

**b) Role of liver in integrating the metabolism of various biomolecules (A. 121) (C.382)**

**c) Short note on gout (A. 548) (C. 394)**

## **Section 2**

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

**a) Secondary structure of proteins (A. 38) (C. 56)**

**b) How ammonia is detoxified in human body (A. 258) (C.335)**

**c) Briefly discuss requirement, source, factors effecting absorption and regulation of iron absorption. (A. 498) (C.414)**

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

**a) Write coenzyme form of different water soluble vitamins in table format. (A. 55)**

**b) How pyrimidines are biosynthesized in our body. (A.549) (C.398)**

**c) Short note on Kwashiorkor. (A. 517) (C.516)**

**d) Adenosine deaminase deficiency. (A. 549) (C.397)**

**e) Maple syrup urine disease. (A. 282) (C.365)**

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

**a) Deficiency of which enzyme leads to phenylketonuria.**

**b) Deficiency of B6 vitamin leads to decrease hemoglobin.**

**c) Taking a mixed protein diet leads to improved body growth.**

**d) Deficiency of copper leads to weakening of wall of major blood vessels**

**e) Folic acid deficiency leads to homocystenemia.**

**f) FIGLU test. (A. 297)**

**g) Proline is not an amino acid.**

**h) What is the major energy source of brain in starvation?**