0819E373
First Year MBBS Examination
I MBBS Biochemistry Paper 1
Time: 3 hours
Max Marks: 50
Date: 10-01-2013

Instructions:

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) Explain in brief competitive inhibition and its application in drug therapy (A. 63) (C.92)

b) Describe the chromatography technique and its application in biochemical analysis. (A.434)(C.719)
c) Give an account of hemoglobin with altered primary structure. (A.339) (C.203)

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

a) Mucopolysaccharides and their functions (A. 98) (C.22)
b) What are isoenzymes and give 2 examples of isoenzyme forms of clinical importance (A.69, 79) (C.112)
c) What is Vanden Bergh test its application in differential diagnosis of jaundice (A. 359)
d) Phospholipids and their biological function (A. 108) (C.34)
e) Lactic acidosis (A. 171) (C.248)

3. Discuss Any TWO (6)

a) Liver function tests based on its synthetic functions (A. 361) (C.453)
b) Anion gap and its clinical application in diagnosis of acid-base imbalance

(A. 403) (C.480)
c) Western blot technique and its applications (A. 609) (C.589)

Section 2

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

a) Explain various steps in gluconeogenesis and its physiological significance (A. 135) (C.258)
b) How palmitic acid (C16) is oxidized completely to acetyl Co-enzymeA through beta oxidation with energetic. (A. 194) (C.287)
c) How 2,3bisphosphoglycerate is produced and what is its significance (A. 134) (C.251)

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

a) Uncouplers of Oxidative phosphorylation. (A. 320)(C.233)
b) Tumor markers and their application in diagnosis of different cancers (A. 666)(C.691)
c) What are immunoglobulins? Give

an account on structure and function of different types of immunoglobulins. (A. 649) (C.186)
d) Heavy metal poisoning (A. 532) (C.666)
e) Active transport system (A. 15) (C.651)

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

a) Carbon monoxide inhibits cellular respiration.
b) Ethyl alcohol as antidote for methanol poisoning.
c) ATP inhibits glycolysis
d) Urine titrable acidity in metabolic acidosis.
e) Thiamine deficiency leads to impaired carbohydrate metabolism.
f) Increase in serum LDL a risk factor for atherosclerosis.
g) Uncontrolled diabetes leads to metabolic acidosis
h) Vitamin B12 deficiency leads to methyl malonicaciduria.