D 11293 (Pages : 1 + 2 = 3) Name.....

Reg. No.....

FIRST PROFESSIONAL M.B.B.S. DEGREE EXAMINATION, FEBRUARY 2011

BIOCHEMISTRY—Paper I

(New Scheme)

Time : Three Hours Maximum : 50 Marks

Answer Sections A and B in **separate** *answer-books.*

Draw diagrams wherever necessary.

Question III *MCQs should be answered first in the response sheet provided.*

Section A

I. Write in detail about the regulation of blood glucose and add a note on Glycated hemoglobin and its clinical significance.

(7 + 3 = 10 marks)

II. Discuss the following :—

(a) Formation and functions of Glutathione.

(b) Allosteric regulation of enzyme activity.

(2 × 5 = 10 marks)

III. Multiple Choice Questions –(10 Numbers Response sheet attached). (10 × ½ = 5 marks)

Section B

IV. Write briefly on :

(a) Homocystinurias.

(b) Reverse cholesterol transport.

(c) Ketoacidosis.

(d) Functions of prostaglandins.

(e) One carbon metabolism.

(5 × 3 = 15 marks)

V. Write short notes on :

(a) Inhibitors of oxidative phosphorylation.

(b) Lipotropic factors.

(c) Carcinoid syndrome.

(d) Zwitter ion.

(e) Niemann-Pick's disease.

(5 × 2 = 10 marks)

III. MULTIPLE CHOICE QUESTIONS

BIOCHEMISTRY—Paper I

Time : 10 Minutes Maximum : 5 Marks

Note.—(1) *Do not write anything on the question paper.*

(2) *Write your register number on the answer-sheet provided.*

(3) *Select the* **appropriate answer** *and encircle the alphabet against each question in the answer-sheet provided.*

(4) *In the answer-sheet enter the total number of your answers in the appropriate box provided.*

(5) *Each question carries ½ mark.*

1. Glucose transporter (Glu T) involved in the transport of fructose is :

   (A) Glu T4. (B) Glu T2.

   (C) Glu T5. (D) Glu T3.

2. Apo-C11 is the activator of :

   (A) Hepatic lipase. (B) Lecithin cholesterol acyl transferase.

   (C) Lipoprotein lipase. (D) Acyl cholesterol acyl tranferase.

3. The colour reaction for guanido group containing amino acid is :

   (A) Xanthoproteic test. (B) Sulphur test.

   (C) Sakaguchi's test. (D) Pauly's test.

4. Which one of the following event occur partly in mitochondria and partly in cytosol ?

   (A) Urea synthesis. (B) Protein synthesis.

   (C) Fatty acid synthesis. (D) β oxidation of fatty acids.

5. Lipoprotein with low protein content is :

   (A) HDL. (B) LDL.

   (C) Chylomicron. (D) VLDL.

6. Metanephrine is formed from epinephrine by :

   (A) N-methylation. (B) O-methylation.

   (C) N-acetylation. (D) Hydroxylation.

7. Exercise intolerance is the characteristic feature of :

   (A) Andersen's disease. (B) Von Gierke's disease.

   (C) McArdle's disease. (D) Cori's disease.

8. The protein rich in glycine is :

(A) Collagen. (B) Keratin.

(C) Globulin. (D) Albumin.

9. Co-enzyme for Pyruvate dehydrogenase reaction are the following **except** :

(A) Lipoic acid. (B) Folic acid.

(C) TPP. (D) NAD.

10. Which one of the eicosanoid is present in the slow reacting substance (SRS-A) ?

(A) Prostaglandin E2. (B) Thromboxane A2.

(C) Leukotriene C4. (D) Prostacyclins.

(10 × ½ = 5 marks)