

C 27371-A

(Pages : 1 + 2)

Name.....

Reg. No.....

FIRST PROFESSIONAL M.B.B.S. DEGREE EXAMINATION, MAY/JUNE 2012

BIOCHEMISTRY—Paper I

(New Scheme)

Time : Three Hours

Maximum : 50 Marks

Answer Sections A and B in separate answer-books.

Answer all questions.

Draw diagrams wherever necessary.

Section A

- I. Multiple Choice Questions (single response type 10, separate sheet attached) ($10 \times \frac{1}{2} = 5$ marks)
- II. Write the characteristic features of isoenzymes. Discuss in detail about clinically important isoenzymes and its significances. (3 + 7 = 10 marks)
- III. (a) Discuss the hormonal regulation of blood glucose.
(b) Write the formation and functions of Prostaglandins. (2 × 5 = 10 marks)

Section B

IV. Write briefly on :

- (a) Fatty liver.
(b) Hyperammonemias.
(c) Metabolism of Chylomicrons.
(d) Classify proteins based on functions.
(e) Depict the path of Electron transport chain.

(5 × 3 = 15 marks)

V. Write briefly on :

- (a) Rf value.
(b) Marasmus.
(c) Glycated hemoglobin.
(d) Abnormal metabolites in phenyl ketonuria.
(e) Write the normal blood level of Urea, Uric acid, Creatinine and Total Protein

(5 × 2 = 10 marks)

- 8 Which among the following is not a substrate for gluconeogenesis ?
- (A) Lactate. (B) Propionyl Co A.
(C) Acetyl Co A. (D) Pyruvate.
- 9 The number of molecules of ATP formed per turn of TCA cycle is :
- (A) 8 ATP. (B) 36 ATP.
(C) 2 ATP. (D) 12 ATP.
- 10 One of the key enzyme for gluconeogenesis is :
- (A) Pyruvate dehydrogenase. (B) Glucose 6 Phosphatase.
(C) Pyruvate kinase. (D) Glucose 6 phosphate dehydrogenase.
- (10 × ½ = 5 marks).

I. MULTIPLE CHOICE QUESTIONS

- 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 number 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 $\frac{1}{2}$ mark.

Section A

- I. 1 Which one of the following is an Omega 3 fatty acid.
(A) Oleic acid. (B) *Linoleic acid*.
(C) Linolenic acid. (D) Arachidonic acid.
- 2 Which one of the following is not a biologically important peptide ?
(A) Thyroxine.
(B) Oxytocin.
(C) Thyrotropin releasing hormone.
(D) Glutathione.
- 3 The positive lab test in case in Alkaptonuria is :
(A) Obermeyer test. (B) Benedict's test.
(C) DNPH test. (D) Cyanide nitroprusside test.
- 4 Carnitine is formed from :
(A) Lysine. (B) Leucine.
(C) Arginine. (D) Threonine.
- 5 Glycosidic bond is present in the disaccharide sucrose is :
(A) β 1-4 Glycosidic bond. (B) α 1 - β 2 Glycosidic bond.
(C) α 1 - β 4 Glycosidic bond. (D) α 1 - 4 Glycosidic bond.
- 6 Which *one* of the following event partly occur in mitochondria ?
(A) TCA cycle. (B) Urea cycle.
(C) Glycolysis. (D) Beta oxidation of fatty acid.
- 7 Competitive inhibitors alters enzyme kinetics by :
(A) Increasing K_m . (B) Decreasing K_m .
(C) Increasing V_{max} . (D) Decreasing V_{max} .