

**PARUL UNIVERSITY**  
**FACULTY OF MEDICAL SCIENCE & RESEARCH**  
**M.B.B.S Supplementary Examination September - 2017**

Year: 1

Date: 28/09/2017

Subject Code: 19100105

Time: 10:00 am to 12:30 pm

Subject Name: Biochemistry Paper-I

Total Marks: 50

**Instructions:**

1. Attempt all questions from each section.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Write section-A, section-B on separate answer sheets.

**SECTION – A**

- Q.1** Enumerate the components of electron transport chain. Describe the synthesis of ATP. Indicate the site-specific inhibitors. Mentions two examples of Uncouplers. (4+3+2+1= 10) **(10)**
- Q.2 Discuss on: (any three)** **(15)**
- (a) HMP shunt pathway.
  - (b) Classify Enzymes with suitable examples.
  - (c) Fatty liver
  - (d) Structure & Functions of various phospholipids.

**SECTION – B**

- Q.1 Write short notes on: (any two)** **(08)**
- (a) Mechanism of action of insulin on blood glucose regulation.
  - (b) Functions of Vitamin A.
  - (c) Biologically important compounds derived from cholesterol.
- Q.2 Write briefly on: (any four)** **(12)**
- (a) Isoenzymes as cardiac biomarker.
  - (b) Mitochondria
  - (c) Function of FAD<sup>+</sup> as coenzyme with one suitable example,
  - (d) Fatty acid synthesis enzyme complex
  - (e) Give the difference between Glycogen / Starch.
- Q.3 Answer in one word/MCQ** **(05)**
1. The repeating unit in hyaluronic acid:
 

(a) Glucuronic Acid & Galactose	(b) Glucuronic Acid & Galactosamine
(c) Glucuronic Acid & N-acetyl Galactosamine	(d) Glucuronic Acid & N-acetyl Glucosamine
  2. Fluidity of membranes depends on
 

(a) Nature of Fatty Acid	(b) Concentration of Proteins
(c) Glycosylation of Proteins	(d) Membrane Pumps
  3. Which is involved in calcium signaling?
 

(a) Calmodulin	(b) Diacyl Glycerol
(c) Phosphatidyl Inositol Diphosphate	(d) Guanyl Cyclase
  4. Cholecalciferol is Synthesized in:
 

(a) Liver	(b) Skin
(c) Kidney	(d) Intestinal Mucosa
  5. If the product is more toxic than original compound, which of the following terms is used?
 

(a) Biotransformation	(b) Detoxification
(c) Bio-Activation	(d) Conjugation