


**M-4005**
**First Year M. B. B. S. Examination**
**July - 2015**
**Biochemistry : Paper - I**

Time : 1 Hour &amp; 50 Minutes]

[Total Marks : 40

**Instructions :**

(1)

નીચે દર્શાવેલ ચિહ્નો સાચી રીતે ઉપયોગ કરવાની જરૂર છે. Fillup strictly the details of signs on your answer book.		Seat No. :
Name of the Examination : <b>FIRST YEAR M. B. B. S.</b>		<div style="border: 1px solid black; height: 100px; width: 100%;"></div> Student's Signature
Name of the Subject : <b>BIOCHEMISTRY - 1</b>		
Subject Code No. : <b>4 0 0 5</b>	Section No. (1, 2, .....): <b>1&amp;2</b>	

(2) Write each section in separate answer book.

(3) Draw figures wherever possible.

**SECTION - I**

- 1 Short note : (2 out of 3) 8
  - (a) Describe the stage of absorption, transport and storage of iron in the body. Add a note on disorder associated with defective iron metabolism.
  - (b) Degradation and clinical significance of cholesterol.
  - (c) Role of kidney in maintenance of acid-base balance.
- 2 Describe in brief : (4 out of 6) 12
  - (a) Metabolic acidosis.
  - (b) Mucopolysaccharides and their biomedical importance.
  - (c) Function of prostaglandin.
  - (d) Chemiosmotic coupling theory for Oxidative phosphorylation.
  - (e) Plasma lipid profile.
  - (f)  $\beta$  oxidation of fatty acid and its energetics.

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[ Contd.....

## SECTION - II

Case with 5 questions :

A 56 yr old man with known history of diabetes mellitus (DM) is brought to the hospital in a semiconscious state. He has rapid breathing his relative says that due to a family functions, his diet and sleep have been erratic. The physician advises to routine blood test - RBS, Blood Urea, Creatinine, HBA1C and Electrolytes.

- (1) Write the Normal Range of random, fasting and post-prandial plasma glucose.
- (2) What is the utility of HBA1C estimation?
- (3) What is the WHO criteria for diagnosis of diabetes mellitus?
- (4) Enumerate the three cardinal symptoms of diabetes mellitus.
- (5) Enumerate any two late complication of diabetes.

Answer in few line : (5 out of 7)

- (1) TCA cycle is Amphibolic in nature.
- (2) Selenium is an Antioxidant Mineral.
- (3) LDL cholesterol is called as bad cholesterol.
- (4) Venom of viper snake bite leads to haemolysis.
- (5) Fatty liver is commonly observed in chronic alcoholics.
- (6) Sucrose is non reducing sugar.
- (7) Ketoacidosis is potentially dangerous to the body.