



HBA-M20175 Seat No. _____
First Year M.B.B.S. Examination
August - 2017
Biochemistry : Paper - I

Time : 3 Hours]

[Total Marks : 50

- Instructions :**
1. Figures on right indicate full marks.
 2. Write section 1 and 2 in separate answer sheets.

SECTION - I

- 1 State true or false with justification on any **six** : **1×6=6**
(out of Seven)
- (a) Buffering capacity of plasma protein is mainly due to histidine residue.
 - (b) Raw egg is sometimes used as an antidote of mercury poisoning.
 - (c) All disaccharides are reducing in nature.
 - (d) Ionophores increase ATP synthesis.
 - (e) Sickle cell hemoglobin offers a biological advantage.
 - (f) Lysosome acts as a packing unit of the cell.
 - (g) Chargaffs rule is always maintained in RNA.
- 2 (a) Read the following case report and answer the All five **5**
questions : (No Options)
A pregnant lady came to hospital with the complaints of weakness. On examinations pallor is found in palms, tongue and nail beds. Peripheral smear (P/S) showed macrocytic anemia and urine contains Formimino glutarnic acid.
Questions :
1. Which vitamin is deficient? What's the reason for deficiency in this case?
 2. Give the reason for macrocytic anemia.
 3. Give reason for presence of FIGLU in urine.
 4. Write dietary sources for this vitamin.
 5. Name coenzyme form of this vitamin with its function.
- (b) Discuss the followings : (Two) (No Option) **3+2=5**
1. Cell transport mechanism with suitable examples.
 2. Structure of t-RNA molecule.

- 3 Write short notes on any three : (Out of Four) **3×3=9**
1. Explain Mucopolysaccharides with example and their biological role.
 2. Biochemical effect of Vitamin D.
 3. Metabolic acidosis.
 4. Renin-angiotensin system.

SECTION - II

- 4 Give your comments with Biochemical justification on any six : (Out of Seven) **1×6=6**
- (a) Fats and oils have a tendency to become rancid.
 - (b) Premature infants are at risk of developing Respiratory Distress Syndrome.
 - (c) Prophylactic vitamin K is given to premature infants.
 - (d) Iron is one way element.
 - (e) IgG acts as RH isoimmunization.
 - (f) High potassium level found in Hemolyzed sample.
 - (g) Radioactive iodine assay is helpful in diagnosis of thyroid disorders.
- 5 Discuss any two of the following : (Out of Three) **5×2=10**
- A. Different types of enzyme inhibition with suitable examples.
 - B. Markers for Cardiac disease.
 - C. Classify and explain Phospholipids with their functions.
- 6 Write short notes on any three : (Out of Four) **3×3=9**
- A. Different Mechanism of hormone action.
 - B. ELISA: Principle and it's applications.
 - C. Explain Acute phase protein with their significance.
 - D. Explain 5th complex of Electron Transport Chain.