

[KW 504]

FEBRUARY 2010

Sub. Code : 4055

**FIRST M.B.B.S. DEGREE EXAMINATION****Revised (Non-Semester) Regulations****PAPER V – BIOCHEMISTRY - I***Q. P. Code : 524055***Time : Three hours****Maximum: 100 Marks**Answer **ALL** questions**I. Essay Questions :****(2 x 15 = 30)**

1. Define enzymes. Classify Enzymes with suitable examples.  
Explain the concept of active site of enzymes.
2. Describe the steps of HMP shunt pathway. What is its significance?  
How is it regulated?

**II. Write Short notes on :****(10 x 5 = 50)**

1. Nutritional importance of proteins.
2. Describe the requirement, sources, metabolic functions and deficiency manifestations of folic acid.
3. Explain with a neat labeled diagram of fluid mosaic model of biological membrane.
4. Total parenteral nutrition and its importance.
5. t – RNA.
6. Explain the metabolism and functions of HDL.
7. What are glycoproteins? Give three examples and its importance.
8. Chemiosmotic theory.
9. Rapaport leubering shunt pathway and its significance.
10. What are Nucleotides?  
Name any three biologically important nucleotides and their importance.

**III. Short Answer Questions :****(10 x 2 = 20)**

1. Why sucrose is called a non reducing disaccharide?
2. Name the essential fatty acids.
3. Name any four biologically important compounds derived from cholesterol.
4. What are phospholipids? Give two examples.
5. Name the essential aminoacids.
6. Mention any two biological functions of albumin.
7. Name the aminoacids required for purine biosynthesis.
8. Sick cell hemoglobin.
9. Specific dynamic action.
10. Write the principle and significance of biuret test.