

(LE 4254)

**FEBRUARY 2014**  
**FIRST B.PHARM. EXAM**  
**Paper IV – BIOCHEMISTRY**  
***Q.P. Code : 564254***

**Sub Code: 4254**

**Time : Three hours**

**Maximum : 100 marks**

**I. Elaborate on:**

**(2X20=40)**

1. a) Write detail about the sources, chemistry, biochemical role, daily requirements and deficiency manifestations of vitamin B  
b) Coenzymes forms and biochemical synthesis of pyridoxine.
2. a) Give a brief account of the different transport process across biomembranes.  
b) Describe the citric acid cycle with energetic.

**II. Write notes on:**

**(8X5=40)**

1. Write notes on nucleoproteins.
2. Describe the michaelis – menten equation.
3. Brief account of genetic engineering.
4. Clinical applications of enzymes.
5. Classify lipids with suitable examples.
6. Explain the role of immunoglobulins.
7. Discuss the structure of DNA.
8. Abnormal constituents of urine.

**III. Short Answers:**

**(10X2=20)**

1. Basal metabolic rate.
2. Isoenzymes.
3. Codons.
4. Phenylketonuria
5. Structure of sulphur containing amino acids.
6. What are the functions of Vitamin K?
7. Difference between reducing sugars and non reducing sugars.
8. Transport systems.
9. Define nitrogen balance.
10. PUFA.

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