

(LO 4254)

FEBRUARY 2019

Sub Code: 4254

**B.PHARM. DEGREE EXAMINATION  
FIRST YEAR  
PAPER IV – BIOCHEMISTRY**

*Q.P. Code: 564254*

**Time: Three hours**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Explain the reactions of the Citric Acid cycle. Give the significance, and its regulations.
2. Define Enzyme, classify enzymes based on International Union of Biochemistry (IUB) system with suitable examples. Explain the factors affecting the enzyme activity.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Classify lipids.
2. Significance of the Pentose Phosphate Pathway.
3. Wald's Visual Cycle.
4. Significance of the Genetic code.
5. Renal function tests.
6. Lipoproteins.
7. Discuss the functions of Pituitary gland hormone.
8. Jaundice.

**III. Short answers on:**

**(10 x 2 = 20)**

1. Tests to differentiate Glucose from Fructose.
2. Mutarotation.
3. How Vitamin D is activated?
4. Source and functions of Vitamin B<sub>6</sub>.
5. What is transamination and its biological significance?
6. What are the levels of organizations of proteins?  
What is meant by primary structure of a protein?
7. Name some enzymes that are used as therapeutic agents.
8. What is the function of pancreatic lipase?
9. What is the normal level of calcium in blood and its functions?
10. What are the enzymes needed for salvage pathway of purines, and importance of the salvage pathway.

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