Printed Pages : 1 **Roll No.** | | | | | | | | | | | **BOP241**

B.PHARM.

THEORY EXAMINATION (SEM–IV) 2016-17

PHARMACEUTICAL CHEMISTRY –IV

Time : 3 Hours ***Max. Marks : 100***

SECTION – A

1. Attempt the following: **10 x 2 = 20**

(a) Define Km (Michaelis- Menten constant).

(b) Define coenzyme.

(c) Classify enzyme.

(d) Which type of curve is obtained when substrate concentration is plotted against enzyme velocity?

(e) What are ketone bodies?

(f) Give any two functions of pentose phosphate pathway.

(g) Define allosteric inhibition.

(h) How vitamins function as coenzymes?

(i) Define gene.

(j) Explain ketosis.

SECTION – B

2. Attempt any five parts of the following question: **5 x 10 = 50**

(a) Explain factors affecting enzyme activity in detail.

(b) Draw the complete citric acid cycle (TCA cycle) with structure. Explain its significance.

(c) Write in detail about the mechanism of oxidative phosphorylation.

(d) Define gluconeogenesis. Explain various steps involved in gluconeogenesis in detail.

(e) Give various steps involved in β-oxidation.

(f) Write a short note on Electron Transport Chain.

(g) Explain the lac–operon hypothesis.

(h) Write in detail the mechanism of inhibition of a reaction catalysed by an enzyme.

SECTION – C

Attempt any two parts of the following: **2 x 15 = 30**

3. Write in detail the process of DNA Replication. Define genetic code and explain the method of elucidation of genetic code.

4. What is translation? Describe the various steps involved in this process.

5. Write a note on any two

(i) Malate-Aspartate shuttle

(ii) Role of NAD and FAD in respiratory chain

(iii) Regulation of cholesterol biosynthesis.