

1694

**B. Pharmacy 5th Semester Examination**

**Pharm. Chemistry-V (OS)**

**HBP-301**

**Time : 3 Hours**

**Max. Marks : 80**

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

- Note :** (i) Each question carries equal marks.  
(ii) Only one question have to attempt from Section A, B, C, D.  
(iii) Section E is compulsory.

**SECTION - A**

1. Discuss the various mechanism of transport across the cell membrane. (16)

OR

2. Classify the enzymes. Describe the general properties of enzymes and their mechanism of action.

**SECTION - B**

3. Enumerate the co-enzymes of nicotinic acid and write one reaction for each of them to illustrate their actions. (16)

OR

4. What do you mean by intermediary metabolism? Explain why Glucose 6-phosphate is regarded as the key intermediate metabolic product of carbohydrate metabolism?

[P.T.O.]

**SECTION - C**

5. What do you understand by the oxidation of fatty acids? Discuss the  $\beta$ -oxidation of fatty acid in detail. (16)

OR

6. Describe incorporation and release of sulphur from organic compounds.

**SECTION - D**

7. Exhaustive note on protein synthesis. (16)

OR

8. Short note on:

- (a) Polymer chain reaction  
(b) Gene expression regulation.

**SECTION - E (Each question having two (2) marks)**

9. Bulk transport across the cell membrane is accomplished by—  
(a) Phagocytosis (b) Pinocytosis (c) Extrusion (d) All of these.
10. From biological point of view solution can be grouped into—  
(a) Isotonic (b) Hypotonic (c) Hypertonic (d) All of these
11. The most important epimer of glucose is—  
(a) Galactose (b) Fructose (c) Arabinose (d) Xylose
12. In  $\beta$ -oxidation of fatty acid which of the following are utilised as co-enzymes?  
(a)  $\text{NAD}^+ - \text{NADP}^+$  (b)  $\text{FADH}_2$  and  $\text{NADH} + \text{H}^+$  (c)  $\text{FAD}$  and  $\text{FMN}$   
(d)  $\text{FAD}$  and  $\text{NAD}^+$ .

13. A Holoenzyme is—

(a) Functional unit (b) apoenzyme (c) co-enzyme (d) all of these.

14. Isoelectric pH of an amino acid is that pH at which it has a—

(a)  $(+)$ ve charge (b)  $(-)$  charge (c) NIL Net charge  
(d) none of these.

15. The gene which transcribed during repression is—

(a) Structural (b) Regulator (c) Promotor (d) Operator

16. In DNA the complementary base of adenine is—

(a) Guanine (b) Cytosine (c) Thymine (d) a&b (2×8=16)