



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Eighth Semester – 2019

Paper: Bio Chemistry (Sp. Theory-I)

Course Code: CHEM-437 Part – I (Compulsory)

Time: 15 Min. Marks: 10

Roll No. in Fig. ....

Roll No. in Words. ....

Signature of Supdt.: .....

**ATTEMPT THIS PAPER ON THIS QUESTION SHEET ONLY.**

**Division of marks is given in front of each question.**

**This Paper will be collected back after expiry of time limit mentioned above.**

**Q.1. Encircle the correct option.**

**(10x1=10)**

1. The serum calcium normal range is :

- (a) 5-7 mgs %                      (b) 7-9 mgs %                      (c) 9-11 mgs %                      (d) 11-13 mgs %

2. Zinc is required as a cofactor :

- (a) Alkaline phosphate              (b) Carboxy peptidase              (c) Carbonic anhydrase              (d) All of above

3. Pyrimidine nucleus carbon atoms are contributed by :

- (a) CO<sub>2</sub> & Aspartate              (b) CO<sub>2</sub> & Glutamate              (c) CO<sub>2</sub> & Glutamine              (d) CO<sub>2</sub> & Asparagine

4. Iron deficiency causes which one of anemia :

- (a) Megaloblastic anemia              (b) Microcytic anemia              (c) Normocytic anemia              (d) Pernicious anemia

5. The following are protein amino acids in Urea cycle except :

- (a) Ornithine                              (b) Arginine                              (c) Citrulline                              (d) Arginosuccinate

6. Commonly used vinegar has acetic acid :

- (a) 4%                                      (b) 6%                                      (c) 8%                                      (d) 10%

7. Proteins are digested by all enzymes except :

- (a) Tyrosinase                              (b) Chymotrypsin                              (c) Lipase                                      (d) Aminopeptidases

8. Non-oxidative deamination is facilitated by following except :

- (a) Dehydrases                              (b) Desulfhydrases                              (c) Histidase                                      (d) Dehydrogenases

9. The favorable temperature for *L. bulgaricus* is :

- (a) 25-35°C                              (b) 35-40°C                              (c) 45-50°C                              (d) 50-55°C

10. The optimal alcohol concentration for Ethanol fermentation is :

- (a) 5-10%                                      (b) 10-15%                                      (c) 15-20%                                      (d) 20-25%



**ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED**

**Q-2 Questions with short answers :**

**(10x2)**

1. Differentiate between oxidative and non-oxidative Deamination?
2. Write down the names of sulfur containing amino acids?
3. Write down salient features of Transamination?
4. Which enzyme is involved in the Salvage pathway of pyrimidine?
5. What are the inhibitors of Purine synthesis?
6. How intestinal enzyme play role in digestion of proteins?
7. Write down the uses of lactic acid?
8. What is Saccharine material?
9. Write down the dietary requirement for Iron?
10. Write down the factors inhibiting Calcium absorption?

**Q-3 Questions with Brief answers :**

1. (a) Write a note on Urea Cycle? (7)  
(b) What are the functions of Magnesium? (3)
2. (a) What are the metabolic defects of branched chain amino acids? (5)  
(b) Write down the disorders of Purine metabolism? (5)
3. Write a note on Ethanol Fermentation? (10)