



HCM-003-045502

Seat No. _____

B. Voc. (Chemical Technology)

(Sem. V) (CBCS) Examination

October – 2017

BVCT-502 : Fundamental Biochemistry

Faculty Code : 003

Subject Code : 045502

Time : **3** Hours]

[Total Marks : **70**

- Instructions :** (1) All questions are compulsory and carry equal marks.
(2) Draw diagram and/or scheme wherever necessary.

1 (a) Answer the following questions : 10

- (1) Give any two names of Essential Amino acids.
- (2) Define Lipids.
- (3) Give full form of: HDLP
- (4) What are Dipolar ions?
- (5) Enzymes show optimum activity around _____ pH.
- (6) Define Co-enzyme.
- (7) What are polypeptides ?
- (8) Write the elemental composition of protein?
- (9) Lactose is not a milk sugar. True or False?
- (10) Draw the chemical structure of Histidine.

(b) Answer the following questions : 20

- (1) Enlist the bonds responsible for protein structure.
- (2) Give Classification of enzymes.
- (3) Comment: Animal fats can be preserved longer time than Vegetable fats.
- (4) Give any 4 functions of Lipid in human body.
- (5) Which are different types of protein structure?

- (6) Write down about Acrolein test.
- (7) Write in brief about Ribosomes.
- (8) Define Fat solvents. Give any two examples of the same.
- (9) What is the meaning of Reducing sugar and non-Reducing sugar? Give one example of each.
- (10) Give Fischer's template theory for enzyme.

2 Answer any four out of the following six questions : **20**

- (1) Write a note on Mitochondria.
- (2) Give detailed classification of Carbohydrates.
- (3) Describe functional classification of protein.
- (4) Classify the cell and differentiate between plant cell and animal cell with the help of a labeled diagram.
- (5) Discuss any 5 purity tests for Fats and Oils.
- (6) Define Enzyme Inhibitors. Give a brief account on different Enzyme Inhibitors.

3 Answer any four out of the following six questions : **20**

- (1) Write a note on Triacylglycerols.
- (2) Give a detailed account on Nucleus with appropriate diagram.
- (3) Explain Protein classification based on composition and solubility.
- (4) Write any 5 reactions of Monosaccharides.
- (5) Discuss secondary structure of protein in brief.
- (6) Explain role of Calcium in human body.
