* N C D - 0 0 3 - 1 1 9 2 0 0 1 *

NCD-003-1192001 Seat No. _____

M. Sc. (Sem. II) (CBCS) Examination

April / May - 2017

Microbiology : MICRO-207

(Biochemistry)

Faculty Code : 003
Subject Code : 1192001

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

Instruction : All questions are compulsory. Support your answers with suitable illustrations where required.

1 Answer any seven out of the following 10 Questions : **14**
(2 Marks each)

(a) Define Carbohydrate. Enlist its various types.

(b) What are heteropolysacchrides? Give two examples.

(c) Enlist the bonds that give stability to the quaternary structure of proteins.

(d) How amino acids are classified?

(e) Define coenzyme. Give one example.

(f) Enlist various factors affecting enzyme activity.

(g) State first law of thermodynamics.

(h) Enlist all the carriers of ETC.

(i) What is cellulose? What is its importance?

(j) What are Allosteric enzymes?

2 Answer any **two** of the following: **7×2=14**

(a) Discuss classification and properties of simple lipids.

(b) Write a note on properties of amino acids.

(c) Describe Glycolysis.

3 Answer the following : (7 marks each) **7×2=14**

(a) Discuss polysaccharides.

(b) Write a note on structures of protein.

OR

3 Answer the following : (7 marks each) **7×2=14**

(a) What is enzyme inhibition ? Discuss its mechanism.

(b) Write a note on Energy rich compounds.

4 Answer the following : (7 marks each) **7×2=14**

(a) Explain in detail the catabolism of lipid by β-oxidation.

(b) Discuss Michaelis - Menten's Model of enzyme action.

5 Answer any **two** of the following : (7 marks each) **7×2=14**

(a) Write a note of functions of lipids.

(b) Discuss classification and nomenclature of enzymes.

(c) Describe Citric acid cycle.

(d) What are allosteric Enzymes ? Explain it's mode of action with suitable example.

———————