2022

MICROBIOLOGY

[Honours]

(B.Sc. Second Semester End Examination-2022)

PAPER-C3T

Full Marks: 40 ***Time: 02 Hrs***

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

Group-A

Answer any five questions from the following: **5x2= 10**

1. What are Co-enzyme and apo-enzyme?
2. What is turn over number?
3. Write down the structure of vitamin C.
4. Define non-protein Amino Acid. Give example.
5. What are ribozymes?
6. Draw the structures of D-Psicose and Sorbose.
7. Give some evidences that glucose exists in ring from.
8. What are energy rich compounds?

Group-B

Answer any four questions from the following: **4x5 = 20**

1. Derive the M.M. equation for enzyme –substrate reaction.

2. Differentiate between amylose and Amylopectin. Write-down the mechanism of mutarotation of D-glucose. 2+3
3. Write down the laws of thermodynamics with limitation. What is entropy? 4+1
4. What are enzyme inhibitors? Describe the Competitive inhibition of an enzyme with suitable example. 1+4
5. Describe the structure of Lecithin. What do you mean by Saponification?
6. Write down the differences between α -helix and β -pleated sheet. Mention the name of fat soluble vitamins and their deficiency syndromes.

Group -C

Answer any one question of the following: 1x10 = 10

1. What is Gibb's free energy? Write the significance of Gibb's free energy? Write down the significance of Km and Vmax. 2+3+5
2. write-down the role of vitamins – E as antioxidant. Describe the ninhydrin reaction of amino acid. Briefly describe the structure of protein. 2+3+5
