

--	--	--	--	--	--	--	--	--	--



GIET UNIVERSITY, GUNUPUR - 765022
M. Sc. (First Semester) Regular Examinations, February - 2024
22LSPC101 - Biophysics and Biochemistry
(Life Sciences)

Time: 3 hrs

Maximum: 70 Marks

(The figures in the right hand margin indicate marks.)

PART - A**(2 x 10 = 20 Marks)**Q.1. Answer **ALL** questions

	CO #	Blooms Level
a. Define dielectric constant.	CO1	K1
b. Write first and second laws of thermodynamics.	CO1	K2
c. Write on Vander Waal's forces with examples.	CO1	K2
d. What do you mean by ionisation of water?	CO2	K3
e. Define enthalpy.	CO2	K3
f. What are the importance of phosphoryl group transfer?	CO2	K4
g. Write on polysaccharides found in living cells.	CO3	K3
h. Define tertiary structure of protein.	CO3	K4
i. Explain glyoxylate cycle.	CO4	K2
j. Write on proton pump.	CO4	K2

PART - B**(10 x 5 = 50 Marks)**Answer **ANY FIVE** questions

	Marks	CO #	Blooms Level
2. a. Write details on Colloidal system and its importance in biology.	5	CO1	K1
b. Describe adsorption process and details of its uses.	5	CO1	K2
3.a. Explain chemical bonds found in biomolecules.	5	CO1	K3
b. Illustrate on blood buffering system and significance.	5	CO2	K3
4. a. Give an account of classification of lipid.	5	CO2	K2
b. Write on structure and function of DNA.	5	CO2	K4
5.a. Explain the schematic structure of atom and molecules.	5	CO2	K4
b. Write the structures and importance of monosaccharides.	5	CO3	K3
6. a. Give an account of structure and ionisation of water.	5	CO3	K2
b. Describe classification and mechanism of enzyme action.	5	CO3	K4
7.a. Write details steps of Krebs cycle.	5	CO4	K3
b. Explain Oxidative phosphorylation in animal cell.	5	CO4	K2
8. a. Give an account of non- cyclic photophosphorylation.	5	CO4	K2
b. Write on general reactions of amino acid biosynthesis.	5	CO4	K3

*** End of the Paper ***