

**CARMEL COLLEGE OF ARTS, SCIENCE & COMMERCE FOR WOMEN
NUVEM-GOA**

B. Sc. CBCS SEMESTER V REPEAT EXAMINATION, JULY 2021

Semester: V Course name & Code: BIOCHEMISTRY AND METABOLIC PROCESSES ZOC-106

Total Marks: 30

Duration: 2 hrs

Total No. of pages:01

Instructions: 1. All questions are compulsory.

2. Figures to the right indicate marks allotted to the question.

3. Illustrate your answers wherever necessary.

Q.I. Answer ANY FIVE of the following: (2x5)

1. What is "Gibbs Free Energy"?
2. Differentiate between diffusion and facilitated diffusion.
3. State the three laws of Thermodynamics.
4. What is the importance of gluconeogenesis in animals?
5. State the importance of the Pentose Phosphate Pathway.
6. Differentiate between inhibitors and uncouplers of Electron Transport Chain.
7. What is the fate of the carbon skeleton of amino acids?
8. What is ketogenesis? Name any 2 Ketogenic substances?

Q.II. Answer ANY FOUR of the following: (5x4)

1. Write a short note on the Malate- Aspartate shuttle.
2. Discuss the enzymes involved in regulation of glycolysis.
3. Discuss the reactions in the Pyruvate dehydrogenase complex.
4. Describe the ATP synthase enzyme involved in oxidative phosphorylation.
5. With an illustration explain the Urea Cycle.
6. Explain the beta oxidation of Palmitic Acid.