

Exam. Code : 206602  
Subject Code : 4712

M.Sc. Bioinformatics 2<sup>nd</sup> Sem. (Batch 2021-23)  
**ADVANCED BIOCHEMISTRY AND  
IMMUNOLOGY**  
Paper : BI-526

Time Allowed—3 Hours] [Maximum Marks—75

Note :— Attempt *five* questions in all, selecting at least **one** question from each section. The **fifth** question may be attempted from any section. All questions carry equal marks.

**SECTION—A**

1. What is Glycolysis ? Explain the steps with a diagram.
2. Discuss beta oxidation of fatty acids.

**SECTION—B**

3. What is enzyme ? Discuss Michaelis Menten equation and LWB plot.
4. What is allosteric modulation ? Discuss differences between competitive and uncompetitive inhibition.

**SECTION—C**

5. What are hormones ? Discuss role of cell surface receptors in signaling.

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(Contd.)

6. Explain chemotaxis and quorum sensing.

**SECTION—D**

7. Explain antigens, epitopes, antigenicity and immunogenicity. Discuss B and T-cell epitopes.
8. Differentiate between humoral and cell mediated immune responses.