

# School of Biological and Life sciences

Department of Biological and Life Sciences

Mid Term Examination

Exam Date: 27 Sep 2023

Time : 90 Minutes

Marks : 50

## Sem III - MSBC6004 - Protein Lipid and Nucleotide Metabolism

*Your answer should be specific to the question asked*

*Draw neat labeled diagrams wherever necessary*

- 1) Write full form of ADP, GDP, CDP and UDP? K2 (2)
- 2) Write mechanism of thyroid hormones. K1 (3)
- 3) Describe the de novo biosynthesis pathway of Pyrimidine, highlighting the key enzymatic reactions involved and the regulation of this process. K2 (4)
- 4) Discuss the catabolism pathways of individual amino acids, highlighting the key enzymatic reactions involved. K2 (6)
- 5) Name polar amino acid along with one property? K3 (6)
- 6) Discuss the regulation of cholesterol metabolism, including the roles of HMG-CoA reductase and LDL receptors. K3 (9)
- 7) Describe the feedback mechanisms involved in the regulation of hormone secretion, focusing on negative feedback loops and their importance in maintaining hormonal balance. K4 (8)
- 8) Explain the general metabolism of lipoproteins, including their classification, functions, and secretion. K4 (12)

**OR**

What is beta-oxidation of fatty acid. explain step by step process? K4 (12)