

B PHARM
(SEM II) THEORY EXAMINATION 2022-23
BIOCHEMISTRY

Time: 3 Hours**Total Marks: 75****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 10 x 2 = 20

- (a) Classify amino acids with their structures.
- (b) What are essential fatty acids? Give examples.
- (c) Define the term Glycogen storage disease.
- (d) What are uncouplers? Give examples.
- (e) Give examples for bile acids and its role in lipid metabolism.
- (f) Explain the term Phenylketonuria.
- (g) Differentiate codons and anticodons.
- (h) Write a note on gout. What are operons?
- (i) Classify enzymes with at least one example each.
- (j) What is Michaelis-Menten plot?

SECTION B

2. Attempt any *two* parts of the following: 2 x 10 = 20

- (a) Describe the reactions of Citric acid cycle with its bioenergetics.
- (b) Explain the steps of protein biosynthesis and a note on protein synthesis inhibitors.
- (c) Elaborate the reactions of urea cycle and its disorders. What is transamination?

SECTION C

3. Attempt any *five* parts of the following: 5 x 7 = 35

- (a) Discuss the various energy rich compounds with their classification and structure.
- (b) Explain the HMP shunt pathway with its significance.
- (c) Write a short note on Electron Transport Chain and Oxidative Phosphorylation.
- (d) Describe the formation and utilization of ketone bodies.
- (e) Discuss the β -oxidation of fatty acid with its energetics.
- (f) Write short notes on Purine nucleotide biosynthesis.
- (g) Describe the competitive enzyme inhibition with suitable examples.