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BPHARM
(SEM II) THEORY EXAMINATION 2024-25
BIOCHEMISTRY

TIME: 3 HRS**M.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.	Differentiate between the endergonic and exergonic reactions.
b.	What is ketoacidosis?
c.	Discuss the symptoms of hypercholesterolemia.
d.	What is transamination?
e.	State the biological role of carbohydrates.
f.	Discuss the enzyme inhibitors with examples.
g.	Recall the applications of isoenzymes.
h.	Define hyperuricemia and gout disease.
i.	Write about the coenzymes.
j.	Define the term isoenzymes.

SECTION B

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

a.	Explain the pathway, energetics, and significance of the citric acid cycle.
b.	Write about the genetic code and its features.
c.	Discuss the process of oxidative phosphorylation & its mechanism

SECTION C

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

a.	Explain the structure of DNA
b.	Write about the glycolysis pathway.
c.	Explain the urea cycle and its disorders.
d.	Describe the electron transport chain (ETC) and its mechanism.
e.	Explain the HMP shunt and its significance.
f.	Describe the hormonal regulation of blood glucose levels and diabetes mellitus.
g.	Give a short note on nomenclature and IUBMB classification of enzymes.