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BPHARM
(SEM VI) THEORY EXAMINATION 2024-25
PHARMACEUTICAL BIOTECHNOLOGY– THEORY

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.	Cite at least two industrial uses of enzyme protease.
b.	Define the term “protein engineering.”
c.	What is “recombinant DNA technology”?
d.	Define the role of “restriction endonucleases” with an example.
e.	State the role of immunoglobulins in immunity.
f.	What is “hypersensitivity reaction”?
g.	What is transformation in microbial gene transfer?
h.	What is genetic mutation?
i.	Name a microorganism capable of producing penicillin.
j.	Define the term “plasma Substitutes” with an example.

SECTION B

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

a.	Explain the working of a biosensor with a neat and labelled diagram.
b.	Illustrate the procedure for biotechnological production of hormone insulin using recombinant DNA technology.
c.	Discuss the storage conditions and stability of official vaccines.

SECTION C

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

a.	Discuss the various methods of enzyme immobilization and some of their applications.
b.	Describe the procedure of PCR and mention some of its important applications.
c.	Classify immunity and differentiate between cellular and humeral immunity.
d.	Discuss the microbial biotransformation along with its applications.
e.	Describe the procedure of ELISA.
f.	Illustrate the production of vitamin B12 by fermentation.
g.	Explain the collection, processing and storage of whole human blood and dried human plasma.