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B PHARM
(SEM VI) THEORY EXAMINATION 2022-23
PHARMACEUTICAL BIOTECHNOLOGY– THEORY

Time: 3 Hours *Total Marks: 75*

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

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

a. Name the microorganisms used in the production of enzymes amylase and penicillinase.

b. What are the restriction end nucleases? Give an example.

c. What is a toxoid vaccine? Give an example.

d. Erythroblastosis foetalis is an example of which type of hypersensitivity reaction?

e. Define the terms immune stimulation and immune suppression with an example of each.

f. What is the storage temperature of refrigerated vaccines?

g. What is ELISA? Give an example of its application.

h. Give two differences in the genetic organization of eukaryotes and prokaryotes.

i. Name two important parameters that need to be controlled while operating any fermenter.

j. What is a plasma substitute? Give one example.

SECTION B

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

a. Discuss the working of a biosensor highlighting its various components with a neat and labeled diagram.

b. Illustrate in detail about the process of PCR and write some of its important applications.

c. Describe the processing and storage of whole human blood and dried human plasma.

SECTION C

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

a. Discuss the various methods involved in enzyme immobilization with examples.

b. Describe the process of manufacturing human insulin using rDNA technology and genetic engineering.