Printed Pages: 01 **Sub Code:BOP482**

Paper Id: 150217 **Roll No.** | | | | | | | | | | |

B. PHARM.

(SEM VIII) THEORY EXAMINATION 2018-19

PHARMACEUTICS-X

(PHARMACEUTICAL BIOTECHNOLOGY)

Time: 3 Hours ***Total Marks: 70***

Note: Attempt all Sections. If you require any missing data, choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2 x 7 = 20

a. What is immunogenic?
b. Define heptan.
c. What function the enzymes DNA ligase perform?
d. Define mutation with example.
e. What is subculture fermentation?
f. Write a short note on Streptokinase.
g. What are natural killer cells?

SECTION B

2. Attempt any *three* of the following: 7x 3 = 21

a. Classify immunity and differentiate active and passive immunity.
b. Enumerate antigen–antibody reactions and their applications.
c. Differentiate amongst the following: Transformation, conjugation and Transduction.
d. Describe gene cloning.
e. Explain any two: (i) Activase (ii) Insulin (iii) Somatotropin.

SECTION C

3. Attempt any *one* part of the following: 7 x 1 = 7

a) Discuss the role of Genetic Recombination in Pharmacy.
b) Describe historical development of antibiotics.

4. Attempt any *one* part of the following: 7 x 1 = 7

a) Explain the role of rDNA technology in vaccine production.
b) Write a note on monoclonal antibodies .

5. Attempt any *one* part of the following: 7 x 1 = 7

a) Enlist various steps followed in screening of soil for organism producing antibiotics.
b) Discuss the principle of selection and design of fermenters.

6. Attempt any *one* part of the following: 7x 1 = 7

a) How progesterone can be converted into different steroidal molecules using microbial transformations?
b) Discuss the factors affecting mutation.

7. Attempt any *one* part of the following: 7x 1 = 7

a) Enlist various techniques of enzyme immobilization with a thorough note on carrier binding methods.
b) Derive the Mechaelis Menton equation and discuss the role of double reciprocal plot.

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