

BACHELOR OF PHARMACY (B. PHARM.) (CBCS-2019 COURSE)
B. Pharm. Sem-VI :SUMMER- 2022
SUBJECT : PHARMACEUTICAL BIOTECHNOLOGY

Day : Wednesday
Date : 20-07-2022

S-20684-2022

Time : 10:00 AM-01:00 PM
Max. Marks : 75

N.B :

- 1) All Questions are **COMPULSORY**.
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Answers to both sections should be written in **SEPARATE** answer books.

SECTION - I

Q.1 Answer all the questions. **[20]**

- a) Draw a neat labelled diagram of prokaryotic and eukaryotic cell.
- b) A DNA sequence is given as ATGGAATTCGGAT. Give sequence of anti-sense strand and mRNA
- c) Give importance of *Thermophilus aquaticus*.
- d) What are contents of Mast cell granules.
- e) Define plasmid
- f) What is role of topoisomerase
- g) Start codons and stop codons
- h) What is a promoter
- i) What do you understand by Okazaki Fragments?
- j) Define DNA mutation

Q.2 Attempt **ANY TWO** of the following **[20]**

- a) With diagrams explain how PCR works.
- b) Give key features that a plasmid must have to serve as a vector.
- c) An important enzyme was isolated from a bacterium. However, it was found to be unstable to the changes in pH and temperature. using an oligo based strategy, explain how will you make this enzyme stable.

SECTION - II

Q.3 Answer **ANY SEVEN** of the following: **[35]**

- a) Type-II hypersensitivity reaction.
- b) Production of MABs by hybridoma technique.
- c) Class I and Class II MHC complex.
- d) Advantages of enzyme Immobilization.
- e) Applications of protease.
- f) Storage conditions for vaccine.
- g) Types of ELISA
- h) Activation and differentiation of T-cells.
- i) Shake-flask culture.
- j) What are enzyme inhibitors.

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