

MASTER OF PHARMACY (M. PHARM.) (CBCS-2019 COURSE)
M.Pharm. Sem-I : PHARMACEUTICAL BIOTECHNOLOGY : MARCH : 2022
SUBJECT: ADVANCED PHARMACEUTICAL BIOTECHNOLOGY

Day : Friday
Date 25-Mar-2022

M-20737-2022

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

N.B.

- 1) **Q.No. 1 and Q.No. 5 are COMPULSORY.** Out of remaining questions answer **ANY TWO** from **each** section.
- 2) Answers to both sections should be written in **SEPARATE** answer books.
- 3) Figures to the **RIGHT** indicate **FULL** marks.

SECTION – I

- Q.1** Outline shot-gun strategy used to sequence large genomes. **(08)**
- Q.2** State the principle of polymerase chain reaction. Elaborate on its mode of operation and application in biotechnology and diagnostics. **(15)**
- Q.3** What is recombinant DNA technology? Describe production of human insulin in *E.coli*. **(15)**
- Q.4** Write notes on **ANY TWO** of the following : **(15)**
- a) cDNA library
 - b) Telomerase
 - c) DNA fingerprinting

SECTION – II

- Q.5** Describe use of microbes in environmental cleanup. **(07)**
- Q.6** Describe GPCR mediated signal transduction. **(15)**
- Q.7** What is human genome project? Give salient outcome of human genome project. **(15)**
- Q.8** Write notes on **ANY TWO** of the following : **(15)**
- a) Single nucleotide polymorphism
 - b) Receptor ligand interaction
 - c) Humanized model
