

T.Y.B.PHARM. SEMESTER-VI (CBCS - 2015 COURSE) :

SUMMER - 2018

SUBJECT : PHARMACEUTICAL BIOTECHNOLOGY

Day : **Thursday**
Date : **03/05/2018**

Time : **10.00 AM TO 01.00 PM**
Max. Marks : 60

S-2018-3937

N.B.

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

SECTION – I

- Q.1** Answer **ANY FIVE** of the following: [10]
- a) Define transduction.
 - b) What are purins and pyrimidins?
 - c) Differentiate between coding and non-coding DNA.
 - d) What is action of a polymerase?
 - e) What is a promoter?
 - f) Draw a neat diagram of tRNA.
 - g) What is reverse transcriptase?
- Q.2** Write in detail about DNA replication. [10]
- Q.3** What is central dogma of molecular biology? Describe transcription and translation. [10]
- Q.4** Write short notes on **ANY TWO** of the following: [10]
- a) F+ plasmid and conjugation
 - b) Mutation in sickle cell
 - c) Applications of PCR

SECTION – II

- Q.5** Answer **ANY FIVE** of the following: [10]
- a) What is shake flask culture?
 - b) Define strain improvement.
 - c) What is an inoculum?
 - d) Draw labeled diagram of immunoglobulin.
 - e) What is a single cell protein?
 - f) Enlist factors affecting enzyme activity.
 - g) Differentiate between fermentor and bioreactor.
- Q.6** Write an essay on innate immune system. [10]
- Q.7** a) What are monoclonal antibodies? How are they produced? [07]
b) Applications of monoclonal antibodies. [03]
- Q.8** Write note on **ANY TWO** of the following: [10]
- a) Sandwich ELISA
 - b) Western blotting
 - c) Fluidized bed reactor

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