

Pre. Ph.D. Course Work (2017 Course) : SUMMER - 2018
(Pharmaceutical Biotechnology)

SUBJECT : PAPER – II : PHARMACEUTICAL BIOTECHNOLOGY
(PHARMACEUTICAL SCIENCES)

Day : Tuesday
Date : 26/06/2018

S-2018-4782

Time : 10.00 AM TO 01.00 PM
Max. Marks : 100

N.B.

- 1) Attempt **ANY FIVE** questions from Section – I and **ANY FIVE** question from Section - II.
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Both the sections should be written in **SEPARATE** answerbooks.

SECTION – I

- Q.1** What is epigenetics? Discuss epigenetic regulation of gene expression. (10)
- Q.2** In a cell culture experiment, you want to measure expression of a marker gene. Describe your method of choice. (10)
- Q.3** Describe amplification of a target DNA in PCR. (10)
- Q.4** What do you understand by BAC and YAC? What are their applications? (10)
- Q.5** Why do you think oxidative stress on cell is a critical factor in disease development? (10)
- Q.6** Write short notes on **ANY TWO** of the following. (10)
- a) Inflammatory markers
 - b) GFP-tag
 - c) Proof reading enzyme

SECTION - II

- Q.7** Explain why it is critical to keep the temperature and pH constant in your enzyme activity assay. (10)
- Q.8** Describe in details sandwich ELISA. (10)
- Q.9** What is gene profiling? What advantages will RNAseq technique will have over to DNA micro array? (10)
- Q.10** Differentiate between primary cell culture and an established cell line, explain their principal uses. (10)
- Q.11** Explain how will you solve the contamination problem in your tissue culture facility? (10)
- Q.12** Write short notes on **ANY TWO** of the following. (10)
- a) Data base search tools
 - b) Immuno localization
 - c) microRNA

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