

SINHAGAD-I (CBCS 2012) : JANUARY 2014
SUBJECT : ADVANCED PHARMACEUTICAL BIOTECHNOLOGY-I

Day : *Wednesday*
Date : *08-01-2014*

Time : *10.00 A.M. To 1.00 P.M.*
Max. Marks : 60.

N.B.:

- 1) Attempt any **THREE** questions from Section-I and any **THREE** questions from Section-II.
- 2) Both the sections should be written in **SEPARATE** answer books.
- 3) Figures to the **RIGHT** indicate full marks.

SECTION-I

- Q.1** Draw illustrated structure of DNA and discuss semiconservative model of replication of DNA. (10)
- Q.2** Describe Central Dogma of Molecular biology and explain why DNA occupies central position in regulation of biological functions. (10)
- Q.3** Describe epigenetic control on gene expression. (10)
- Q.4** Write elaborate notes on : (10)
- a) RNA post-transcriptional modification
 - b) Work of Barbara McClintock.

SECTION-II

- Q.5** Describe in details the experimental setup for Southern blotting. What is reverse Northern hybridization? (10)
- Q.6** Write in details about genomic and cDNA libraries. (10)
- Q.7** Explain thermal cycling and amplification of DNA. (10)
- Q.8** Write elaborate notes on : (10)
- a) Proof reading enzyme
 - b) Phage display.

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