

**M. PHARM. SEM-I (CHOICE BASED CREDIT &  
GRADE SYSTEM) : WINTER - 2017**  
**SUBJECT : ADVANCED PHARMACEUTICAL BIOTECHNOLOGY – I**

Day : **Monday**  
Date : **08/01/2018**

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

**W-2017-3861**

**N.B.:**

- 1) Attempt **ANY THREE** questions from Section – I and **ANY THREE** questions from Section – II.
- 2) Answers to both the sections should be written in **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.

**SECTION – I**

- Q.1** Write in details splicing of mRNA. **[10]**
- Q.2** Discuss advances in DNA sequencing with special reference to automated sequencing. **[10]**
- Q.3** Describe DNA mobility shift assay. What are its objectives? **[10]**
- Q.4** Write short notes on **ANY TWO** of the following: **[10]**
- a) His tag
  - b) Transcription
  - c) Cohesive end ligation

**SECTION – II**

- Q.5** What are cDNA libraries? Explain methods involved in construction of a cDNA library. **[10]**
- Q.6** Describe key steps involved in production of recombinant proteins. **[10]**
- Q.7** Explain the following: **[10]**
- a) Multiplex PCR
  - b) Nested PCR
- Q.8** Write short notes on **ANY TWO** of the following: **[10]**
- a) TA cloning
  - b) PCR in molecular diagnostics
  - c) Multivalent vaccine

\* \* \* \*