

**M. SC. BIOINFORMATICS SEM.-III (2013 COURSE) (CHOICE
BASED CREDIT SYSTEMS) : SUMMER - 2018**

SUBJECT: ELECTIVE – IV: b) COMMERCIAL BIOINFORMATICS

Day : **Friday**

Time: **02.00 PM TO 05.00 PM**

Date : **13/04/2018**

Max. Marks. 60

S-2018-1135

N.B.:

- 1) **Q.1 and Q.5 are COMPULSORY.** Out of the remaining, attempt **ANY TWO** from each sections.
- 2) All question carries **EQUAL** marks.
- 3) Answer to both the sections should be solved in **SEPARATE** answer books.

SECTION – I

- Q.1** Enlist five different HTS technology principals. (10)
- Q.2** Write short notes on **ANY TWO** of the following: (10)
- a) Micro-array technology
 - b) Proteomics
 - c) Transcriptomics
- Q.3** Answer the **ANY TWO** of the following: (10)
- a) Explain the concept of disease monitoring.
 - b) Explain the concept of ADMET.
 - c) What are the applications of proteomics in medicine and its applications?
- Q.4** Explain the role of IPR in bioinformatics. (10)
- OR**
- Describe bioinformatics patents. How data generates for patent literature for commercial benefits?

SECTION- II

- Q.5** Define: (10)
- | | | |
|--------------------|-----------------------|--------------------|
| i) Epigenetics | ii) Neuro-informatics | iii) Glyco-biology |
| iv) System Biology | v) Metagenomics. | |
- Q.6** Write short notes on **ANY TWO** of the following: (10)
- a) Big Data Analytics
 - b) Nano-biotechnology
 - c) Agro bioinformatics.
- Q.7** Answer the following: (10)
- a) Explain the pipeline of NGS data analysis for gene expression analysis.
 - b) What are the drawbacks of NGS technologies?
- Q.8** Write in detail about any two companies working on microarray data analysis. (10)
- OR**
- Write in detail about any two companies working on NGS technologies in India.

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