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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