

**M. Sc. Bioinformatics Sem.-III (2013 Course) (Choice Based Credit Systems) : WINTER - 2018**

**SUBJECT: COMMERCIAL BIOINFORMATICS**

Day: Wednesday  
Date: 31/10/2018

**W-2018-1264**

Time: 02.00 PM TO 05.00 PM  
Max Marks: 60

N.B

- 1) **Q.No.1 and Q.No.5 are COMPULSORY.** Out of the remaining, attempt **ANY TWO** from each section.
- 2) Answer to both the sections should be written in **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.
- 4) Draw neat labeled diagram **WHENEVER** necessary.

**SECTION- I**

- Q.1** Explain the concept behind HTS and focus assembly methods. **(10)**  
OR  
Explain the principal of any two NGS methodology.
- Q.2** Differentiate between **ANY TWO** of the following: **(10)**  
a) Genomics and Proteomics  
b) Trademark and copyright  
c) Drug discovery screening and validation steps
- Q.3** Write short notes on **ANY TWO** of the following: **(10)**  
a) Transcriptomics  
b) Microarray  
c) Commercial Bioinformatics
- Q.4** Explain the role of : **(10)**  
a) Patents in Bioinformatics  
b) Epigenetics in Bioinformatics

**SECTION II**

- Q.5** Define: **(10)**  
a) IPR  
b) Pharmacogenomics  
c) Disease Monitoring  
d) Neuro-Bioinformatics  
e) Nano-Biotechnology
- Q.6** Answer **ANY TWO** of the following: **(10)**  
a) Briefly explain third generation sequencing methods.  
b) What is big data? Explain in brief.  
c) Describe the applications of Agro-bioinformatics.
- Q.7** Write short notes on **ANY TWO** of the following: **(10)**  
a) Systems Biology  
b) Metagenomics  
c) Glycobiology
- Q.8** Enlist at least five bioinformatics companies working principal. **(10)**  
OR  
Add a detail note on two bioinformatics companies working in drug designing.

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