

**M. A. (English)/ M.A. Economics /M.Sc. Micro. /M. Com. //M.Sc.  
Comp. Science/ M..Sc. Analytical Chemistry/ M.Sc. Organic / M.Sc.  
Inorganic SEM - I (Choice Based Credit and Grade Systems)Extra  
Credit (2012 COURSE) : SUMMER - 2019  
SUBJECT : BIOINFORMATICS**

Day : Tuesday  
Date : 07/05/2019

Time : 11.00 AM TO 02.00 PM  
Max. Marks : 60

**S-2019-1262**

**N.B.:**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.

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**Q.1** Answer **ANY THREE** of the following: **[15]**

- a) What is sequence annotation? Explain with example.
- b) Explain in brief the retrieval of biological data with SRS.
- c) Explain briefly various operating systems.
- d) Write the scope of bioinformatics in your words.

**Q.2** Answer **ANY THREE** of the following: **[15]**

- a) Explain in brief DBMS and R-DBMS concept.
- b) Explain different types of flat file formats available for data analysis.
- c) Enlist and explain any one genome database in brief.
- d) What do you mean by miscellaneous databases? Explain with example.

**Q.3** Answer **ANY THREE** of the following: **[15]**

- a) Briefly explain any two amino acid substitution matrices.
- b) Differentiate between BLAST and FASTA.
- c) Explain the term sequence filters. How they are utilized in sequence similarity searches?
- d) Explain any one multiple sequence alignment algorithm.

**Q.4** Write short notes on **ANY THREE** of the following: **[15]**

- a) SWISS- PROT
- b) PROSITE
- c) Pfam
- d) Phylogenetic analysis

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