

**M. SC. BIOINFORMATICS SEM.-I (C.B.C.S.) (2013 COURSE) /
ADVANCED DIPLOMA IN BIOINFORMATICS SEM.-I
(C.B.C.S.) (2013 COURSE) : WINTER - 2017
SUBJECT : BIOLOGICAL INFORMATICS**

Day : Monday
Date : 30/10/2017

Time : 10.00 AM TO 01.00 PM
Max. Marks : 60

W-2017-1007

N.B.:

- 1) **Q.No.1 and Q.No.5 are COMPULSORY.** Out of the remaining questions attempt **ANY TWO** questions from each section.
- 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** Answer in brief: [10]
- a) What are biological data types?
 - b) Define bioinformatics.
 - c) Who is the father of Bioinformatics?
 - d) Explain in short need of bioinformatics in today's era.
 - e) Enlist two literature databases.
- Q.2** Write short notes on **ANY TWO** of the following: [10]
- a) DDBJ
 - b) Secondary databases
 - c) Derived databases
- Q.3** Answer **ANY TWO** of the following: [10]
- a) Give a comparative statement of Genbank, ENA and Gentry flatfile.
 - b) Write a note on protein primary databases.
 - c) Differentiate between Entrez and SRS.
- Q.4** Differentiate between **ANY TWO** of the following: [10]
- a) Local Alignment and Global Alignment
 - b) PAM and BLOSUM
 - c) GOP and GEP

SECTION – II

- Q.5** Explain why? [10]
- a) BLAST is more sensitive than FASTA?
 - b) Similarity will be always more than identity?
 - c) There are different tools for MSA?
 - d) PAM -1 is used for very closely related sequences?
 - e) SPDBV is more significant than Rasmol?
- Q.6** Write short notes on **ANY TWO** of the following: [10]
- a) BLAST
 - b) Alignment analysis tools
 - c) Profiles
- Q.7** Answer **ANY TWO** of the following: [10]
- a) How genomic database are use in medicine? Explain with example.
 - b) Differentiate between SCOP and CATH.
 - c) Why Pfam-A is more authenticated than Pfam-B? Explain its mode of classification.
- Q.8** Explain in detail primer 3. Enlist its applications. [10]

OR

Enlist all chemical compound databases with their respective applications.

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