

**ADVANCED DIPLOMA IN BIOINFORMATICS (A.D.B.) (CBCS-2019 COURSE)**  
**A.D.B. SEM-I : WINTER :- 2021**  
**SUBJECT: BIOLOGICAL INFORMATICS**

**Day : Friday**  
**Date 4/2/2022**

**W-21125-2021**

Time : 10:00 AM-11:30 AM  
Max. Marks: 30

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**N.B.**

- 1) All questions carry equal marks.
  - 2) Figures to the **RIGHT** indicate **FULL** marks.
  - 3) Answer to both the sections should be written in **SAME** answer book.
  - 4) Draw neat diagrams **WHEREVER** necessary.
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**SECTION - I**

- Q.1** Define : (**any five**) **(05)**
- a) Primary databases
  - b) Specialized databases
  - c) Primary resource institutes
  - d) TrEMBL
  - e) Rasmol
  - f) BankIt
- Q.2** Write short notes on : (**any two**) **(10)**
- a) Nucleotide flat file formats
  - b) PIR-PSD
  - c) PDB

**SECTION - II**

- Q.3** Explain in short. (**any five**) **(05)**
- a) Gap penalties
  - b) DotPlot
  - c) MDM
  - d) Heuristic method
  - e) Dotlet
  - f) ProDom
- Q.4** Answer the following : (**any two**) **(10)**
- a) Explain in detail BLAST algorithm.
  - b) Explain the concept of motif, pattern and profiles with example.
  - c) Write a note on ClustalW.

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