

**Exam. Code : 103203**  
**Subject Code : 1310**

**B.A./B.Sc. 3<sup>rd</sup> Semester (Batch 2020-23)**

**BIOINFORMATICS**

**(Introduction to Bioinformatics & Biological Databases)**

**Time Allowed—3 Hours] [Maximum Marks—75**

**Note :— Attempt FIVE questions in all, selecting at least ONE question from each section. The fifth question may be attempted from any section. All questions carry equal marks.**

**SECTION-A**

1. What is Genome sequencing project ? Discuss application of bioinformatics.
2. What is population genomics ? Explain functional genomics and its application.

**SECTION-B**

3. What is a biological database ? Why specialized data model is required for biological sequence ? Explain.
4. What are sequence formats ? Explain any two formats. Discuss importance of sequence formats.

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**SECTION-C**

5. What is genome database ? Discuss feature and significance of any viral genome database.
6. What is a model organism ? Discuss feature and significance of any eukaryotic model organism genome database.

**SECTION-D**

7. What are SCOR and Pfam ? What type of data is present in NDB ? Explain significance of PDBsum.
8. Discuss tools used for searching databases for homologous sequences.

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