Question Paper

Exam Date & Time: 28-Dec-2023 (02:00 PM - 05:00 PM)

MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER MSc. (BIOINFORMATICS / SYSTEMS BIOLOGY) DEGREE EXAMINATION - DEC 2023 / JAN 2024
SUBJECT: MBI-503 / MSB-503 BIOLOGICAL DATABASES
(OBE-2023 REGULATION - REGULARS)

Marks: 60   **Duration: 180 mins.**

Answer all the questions.

Illustrate where necessary.

1)	What are protein-protein interactions (PPI)? Describe the various methods of estimating PPI. Add a note on any one database used for the studies of PPI.	(12)
2)	Describe the following biological databases and their associated file formats. a) GenBank b) PDB	(12)

Explain the following briefly:

3A)	How does PubMed process its queries?	(6)
3B)	Write a note on the following pathway databases. a) KEGG b) WikiPathway	(6)
4A)	Explain the types of biological database classification.	(6)
4B)	Describe the various sequence submission tools available on NCBI.	(6)

5. Write short notes on the following:

5A)	What are the various tiers for the databases within the BioCyc collection?	(3)
5B)	Write a note on dbPTM.	(3)
5C)	What is INSDC?	(3)
5D)	Describe the limitations of biological databases.	(3)

-----End-----