

[50]

SEAT No. _____

No. of Printed Pages : 2

SARDAR PATEL UNIVERSITY
EXTERNAL EXAMINATION
Saturday- DAY, DATE - 24/11/18
TIME:02:00- 05:00 P.M. Course: US03CBNF04
SUBJECT: Basics in Bioinformatics
CLASS- S.Y.B.Sc SEMESTER-III MAX. MARKS- 70

Q1- Select the correct from the following Multiple Choice: [1 X 10] [10]

- 1) It is a simple type of Database based on ordering and indexing.
 - a) Flat file indexing system
 - b) RDMS
 - c) Object oriented database
 - d) None
- 2) Who coined the term Bioinformatics and when?
 - a) PaulienHogeweg, 1979
 - b) Robert Ledley, 1978
 - c) Dr Margaret Oakley Dayhoff, 1976.
 - d) David W Mount, 1977
- 3) Abbreviation for MeSH is
 - a) Medical Social Headquater
 - b) Medicine Subject Heading
 - c) Medical Subject Heading
 - d) Medical Similar Heading
- 4) PubMed is a free database accessing primarily information from
 - a) Genbank
 - b) Medline
 - c) Google
 - d) Internet
- 5) Which one of the following is a primary protein database?
 - a) PIR
 - b) DDBJ
 - c) EMBL.
 - d) NCBI.
- 6) Which server is used to study classification of three-dimensional protein structures?
 - a) DALI
 - b) FSSP
 - c) SCOP
 - d) NCBI
- 7) The names and phylogenetic lineages of organisms present in
 - a) MeSH
 - b) OMIM
 - c) Taxonomy
 - d) PMC
- 8) NCBI's molecular modeling database is called _____.
 - a) PDB
 - b) MMDB
 - c) MSD
 - d) BMRB.
- 9) Tr EMBL contains information about:
 - a) Protein sequence
 - b) Protein classification
 - c) Nucleotide sequence
 - d) Protein structure
- 10) The identification of drugs through genomic study
 - a) Genomics
 - b) Cheminformatics
 - c) Pharmagenomics
 - d) Phrmacogenetics

Q2—Answer the Short Questions: (attempt any TEN) [20]

- 1] Explain the significance of internet in bioinformatics.
- 2] Discuss the importance of search engine .
- 3] Describe the role of database in biology.
- 4] Differentiate between PubMed and PMC (PubMed central).
- 5] Differentiate between EMBL and TrEMBL.
- 6] Give the important features of Swiss-Prot.
- 7] Enlist any four bioinformatics databases.
- 8] Give the abbreviation of OMIM, NCBI, SCOP, MMDB.
- 9] What information is present in database OMIM.
- 10] Explain PDB ID.
- 11] Give the important features of database PDB.

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(P.T.O)

12] Differentiate freeware and shareware software.

Q3 (a) What is bioinformatics. Discuss in brief the history of bioinformatics. [6]

(b) Discuss few important web-sites in Bioinformatics. [4]

OR

Q3 What is a freeware software and how it differ from shareware software explain with examples. [10]

Q4 (a) Explain biological databases in detail and discuss primary and secondary databases with examples. [6]

Q4 (b) Explain Flat file database system. [4]

OR

Q4 Explain different types of biological databases and its importance in bioinformatics. [10]

Q5 Explain Genbank database format. [10]

OR

Q5 Explain Swiss Prot database format. [10]

Q6 (a) Explain SCOP Database in detail. [5]

(b) Write PDB Format. [5]

OR

Q6 (a) Explain CATH database. [5]

(b) Write about MMDB Database. [5]

