

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2025
(Fifth Semester)

Branch – BIOCHEMISTRY

COMPUTATIONAL TECHNIQUES IN BIOINFORMATICS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. WWW stands for
 - (i) World Wide Web
 - (ii) Word Wide Web
 - (iii) Wide World Web
 - (iv) Web World Wide
2. MEDLINE is the primary component of
 - (i).BLAST
 - (ii) PubMed
 - (iii) EMBL
 - (iv) DDBJ
3. Sequin-----
 - (i).is a sequence
 - (ii) Biological software
 - (iii) is a stand-alone software tool developed by the NCBI
 - (iv) is a stand-alone software tool developed by the DDBJ
4. DOT PLOT is a
 - (i) a dot plot represents a data set by creating a rows of dots
 - (ii) a dot plot represents a data set by creating a column and rows of dots
 - (iii) both i) and ii)
 - (iv) a dot plot represents a data set by creating a column of dots
5. DOCKing -----
 - (i).Molecukar modelling tool
 - (ii) Biological software
 - (iii) is a stand-alone software tool developed by the NCBI
 - (iv) is a stand-alone software tool developed by the DDBJ

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

6. a) Brief on Web Browser : PDF
(OR)
b) WiFi Based Connections
7. a) What are the benefits of bioinformatics?
(OR)
b) Format and Tools of NCBI ?
8. a) Brief on DATA retrieval system
(OR)
b) Paraphrase on Sequence Retrieval System (SRS)
9. a) Comment on Data base search tool BLAST
(OR)
b) Applications of Next generation sequencing
10. a) Outline of 3-D STRUCTURE DATABASES and its applications
(OR)
b) Describe Introduction to Docking

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions
ALL questions carry **EQUAL** Marks

(5 x 6 = 30)

11. a) Summarize on Internet basis
(OR)
b) Comment on Any Two Web Browsers
12. a) Introduction and Applications of Bioinformatics
(OR)
b) Narrate the process of Accessing and saving files using PubMed
13. a) How will you retrieval DNA sequence from NCBI
(OR)
b) Sketch on DNA sequence Data base
14. a) Discuss on Local and Global Sequence Alignment
(OR)
b) Notes on i) DOT PLOT
ii) FASTA
15. a) Structure based Drug designing
(OR)
b) Visualization of PDF file using Rasmol

Z-Z-Z

END