

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2017
(Fifth Semester)**

Branch - **BIOCHEMISTRY**

COMPUTATIONAL TECHNIQUES IN BIOINFORMATICS

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10 x 2 = 20)

- 1 What is the difference between FTP and HTTP?
- 2 Which web browser is referred as text only browser on the internet? Write its any two important points.
- 3 '■ 'Bioinformatics is the brain of biotechnology'. Justify this statement.
- 4 What is the role of bioinformatics in the creation of bio-weapons?
- 5 Define webin.
- 6 What is PIR?
- 7 Who developed BLAST and FASTA?
- 8 What are rooted and unrooted trees?
- 9 What is RAM PAGE?
- 10 Name the 2° structure prediction tool.

SECTION - B (25 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

11a Write a note on WWW.

OR

b Describe various parts of a URL.

12 a Explain the tools in NCBI.

OR

b Write briefly about pubmed.

13 a Write in detail about TREMBL and NRL - 3D.

OR

b Write a short note on Gen Bank.

14 a What are dot plots? Give usefulness of dot plots in sequence analysis.

OR

b Discuss briefly about multiple sequence alignment tool.

15 a Write a note on structural visualization.

OR

b Discuss briefly about structure based drug designing.

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Describe the enabling of different types of local area connection.
- 17 Discuss the scope and various applications of bioinformatics.
- 18 Write the structure of SWISS - PROT.
- 19 Write in detail about Smith - waterman and Needleman - Wunsch algorithm
- 20 Explain the 3-D structure databases and their uses.

Z-Z-Z

END