Register Number:

Date: XX/10/2018

ST.JOSEPH'S COLLEGE (AUTONOMOUS) BANGALORE-27
M.Sc. BOTANY – I SEMESTER
SEMESTER EXAMINATION: OCTOBER 2018

BO: 7418: BIOSTATISTICS AND BIOINFORMATICS

Time: 2 ½ hrs. **Max. Marks: 70**

This question paper has TWO printed pages and TWO parts
Instruction: Answer Part-A and Part-B in separate Main Answer Books

PART-A: BIOINFROMATICS

A. Explain or define any FIVE of the following **5 x 2= 10**

1. ExPASY
2. Margaret Dayhoff
3. Biopython
4. Smith & Waterman Algorithm
5. GenBank Format
6. MALDI-TOF

B. Write critical notes on any THREE of the following **3 x 5=15**

7. Human Genome Project
8. Pair wise alignment
9. Phylogenetic trees
10. Protein structure visualization

C. Give a comprehensive account of any ONE of the following **1x 10=10**

11. Sequence databases
12. Role of Bioinformatics in drug designing.

PART-B: BIOSTATISTICS

A. Explain or define any FIVE of the following 5 x 2= 10

13. Roland Fischer
14. Population
15. Cluster sampling
16. Chi-square test
17. Co-efficient of skewness
18. Regression

B. Write critical notes on any THREE of the following 3 x 5=15

19. Sampling & Non-sampling errors
20. ANOVA
21. Diagrammatic representation
22. Normal distribution

C. Give a comprehensive account of any ONE of the following 1x 10=10

23. Types of Correlation with suitable examples
24. (a) The data recorded on the number of chlorophyll deficient plants in *Pisum sativum* population are given below. Calculate the arithmetic mean.

Number of chlorophyll deficient plants	Number of plants
0	34
1	14
2	20
3	24
4	25
5	33
6	37

(b) Find out the value of the median from the following data:

Number of angular seeded plants	12	8	17	10	11	16	18	14	6	7
Number of plants	39	33	42	40	47	42	60	50	22	25