



Register Number:
Date: 30.10.2018

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

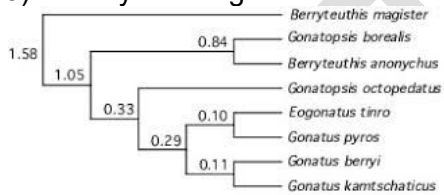
This question paper has TWO printed pages and TWO parts
Instruction: Answer Part-A and Part-B in separate Main Answer Books

PART-A: BIOINFORMATICS

A. Explain or define any FIVE of the following

5 x 2= 10

- 1) UniProt KB
- 2) Clustal Omega
- 3) PubMed
- 4) DDBJ
- 5) Identify the diagram



6) Identify the Sequence format

ORIGIN

1 gcattctgag gcattctcta acaggttctc gaccctccgc catggccccg tggatgcatc
61 tcctcaccgt gctggccctg ctggccctct ggggaccc.....//

B. Write critical notes on any THREE of the following

3 x 5=15

- 7) Computer Networking
- 8) BLAST, its types and applications
- 9) Methods used in Pairwise Sequence Alignment
- 10) Protein Docking

C. Give a comprehensive account of any ONE of the following

1x 10=10

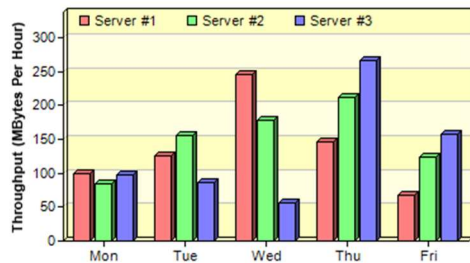
- 11) Techniques used in Proteomics
- 12) Molecular Visualization

PART-B: BIOSTATISTICS

A. Explain or define any FIVE of the following

5 x 2= 10

- 1) Karl Pearson
- 2) Identify the diagram



- 3) Randomization
- 4) Leptokurtic
- 5) Standard deviation Formula
- 6) Degree of freedom

B. Write critical notes on any THREE of the following

3 x 5=15

- 7) Calculate Arithmetic mean with respect to the data given below

No of infected leaves/plant	0-5	5-10	10-15	15-20	20-25	25-30	30-35	30-40
No of plants	12	34	45	47	49	32	22	08

- 8) Methods of Non-random sampling
- 9) Rules of Probability
- 10) Hypothesis testing

C. Give a comprehensive account of any ONE of the following

1x 10=10

- 11) Correlation and regression
- 12) Chi-square test