## C. ABDUL HAKEEM COLLEGE (AUTONOMOUS), MELVISHARAM - 632 509. SEMESTER EXAMINATIONS, NOVEMBER - 2018

## B.Sc., ZOOLOGY SEMESTER V U15MZL501 - BIOSTATISTICS AND BIOINFORMATICS

Time: Three Hours Maximum: 75 Marks

SECTION - A  $(10 \times 2 = 20 \text{ Marks})$ 

Answer ALL Questions.

- What is Discrete Variable.
- 2. What is Histogram?
- 3. What is mean?
- Explain Standard error.
- Student t test.
- Chi-square test.
- 7. DDBJ.
- 8. RasMol.
- 9. BLAST
- Phylogenetic Tree.

## SECTION - B (5 X 5 = 25 Marks)

## Answer ALL Questions.

11. a) Write a note on the different kinds of Sampling.

(Or

b) Write a note on a) Bar diagram and its roll in statistics (b) What is a bar graph?

12. a) Find out the mean of the following data.

Class 10-20 20-30 30-40 40-50 50-60 60-70 70-80 Frequency 15 13 33 24 26 30 24

(Or)

b) Find out the Standard deviation of the following data.

13. a) Write the test of hypothesis and explain the process of Statistical Hypothesis Testing?

(Or.)

- b) Explain- Chi square Test and Write its characteristics features
- 14. a) Write a note on Bioinformatics and its uses in Science

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- b) Give a note on Nucleic acid and its uses
- a) Give a note on Pairwise Sequence Alignment.

(Or

b) Explain Z-score and Dot Plot

SECTION - C (3 X10 = 30 Marks) Answer **ANY THREE** Questions.

16. Draw the frequency polygon for both groups on the same areas

 Marks
 30-40
 40-50
 50-60
 60-70
 70-80
 80-90
 90-100

 Group A
 10
 4
 5
 8
 4
 5
 3

 Group B
 8
 6
 5
 9
 8
 7
 5

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17. Calculate the Mean deviation and Standard deviation from the following data.

18. Calculate the T value from the given data.

19. Write a detailed notes and importance of PIR, Swiss, PDP and SCOP.

20. Describe briefly PAM, FASTA and PHYLIP.

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