

2019

3rd Semester Examination
STATISTICS (Honours)

Paper - C7P

(Statistical Computery using C/C++ Programming)

Full Marks : 20

Time : 3 Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Answer any one questions

1. Answer any one on lottery basis 1 × 15 = 15
- a. Write a program in C/C++ to find the mean, variance and co-efficient of variation of a grouped frequency data.
 - b. Write a program to explain the concept of array of objects.
 - c. Write a program in C/C++ to input two square matrices say A and B, find transpose of matrices A and B say A^T , B^T and hence find the product matrices AB and $A^T B^T$.

[Turn Over]

- d. Write a program in C/C++ to find roots of a quadratic equation and hence comment on the type of roots obtained.
- e. Write a program in C/C++ to generate a random sample of input size (n) from an Exponential distribution with parameter λ . Calculate the sample mean and sample variance and compare with their population counterparts.
- f. Write a C++ program for calculating the are of rectangle and circle using functions.
- g. A six faced die was thrown 300 times and the number of points obtained at each throw was recorded. In this way the following frequency distribution was obtained.

Number of points per throw	Frequency
0	1
1	30
2	52
3	46
4	40
5	54
6	77

Write a program in C/C++ to fit a Binomial distribution to the data.

- h. Write a program in C/C++ to fit the two lines of regression using user's input data.
- i. Write a program to read and write an array of integers into binary file.
- j. Write a program in C/C++ to find plot of a graph $y = f(x)$ and hence comment on its nature.

2. Viva voce 3

3. Practical note book 2
