

THIRD SEMESTER MODEL EXAM

BCA

Computer Oriented Numerical and Statistical Methods.

Time: 2 Hrs

Maximum: 60 Marks

Section A (Short Answer Type Questions)

Each correct answer carries a maximum of 2 marks.

Ceiling 20 marks.

1. What is the number of significant digits of the number 0.0002392
2. What do you mean by a polynomial equation?
3. Give the iteration formula of Newton-Raphson-Method.
4. What do you mean by the mode of a data?
5. Write the formula for calculating the median of a continuous frequency table
6. Define Standard Deviation.
7. Define Quartile Deviation
8. ~~Give the relation~~
8. Define correlation coefficient.
9. Define the sample space of a random experiment
10. Define events
11. Define a Random variable.
12. What do you mean by the intersection of two events.

Section B (Short Essay Type Questions)
Each correct answer carries a maximum of 5 marks.
Ceiling 30 marks.

13. How would you decide the two initial values that are required for using bisection method?
14. Give the formula for Newton-Raphson method.
15. Give the relationship between Arithmetic mean, Geometric mean and Harmonic mean
16. Geometric mean of 2, 4, 6, 16 and 32 is
17. The mean of 20 observations is 15. On checking it was found that two observations were wrongly copied as 3 and 6. If wrong observations are replaced by correct values 8 and 4, then the correct mean is
18. Distinguish between correlation and regression.
19. Write the sample space of throwing two dice.

Section C (Essay type Questions)

Answer any one question.

Correct answer carries 10 Marks.

20. Using Newton-Raphson method find a root of the equation $x^3 - 2x - 5 = 0$.
21. Find the median of the following data
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|------------------|------|-------|-------|-------|-------|-------|
| Marks : | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 |
| No. of students: | 6 | 5 | 8 | 15 | 7 | 9 |