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THIRD SEMESTER (CBCSS–UG) DEGREE EXAMINATION NOVEMBER 2021

B.C.A.

BCA 3C 05—COMPUTER ORIENTED NUMERICAL AND STATISTICAL METHODS

(2019—2020 Admissions)

Time : Two Hours   Maximum : 60 Marks

Section A

Answer atleast **eight** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall ceiling 24.

1. Define Mean Deviation.

2. Write Newton Raphson Formula.

3. What are Positional Averages?

4. Calculate Geometric Mean of 2574, 475, 75, 0.8, .005

5. Mean and Median calculated for a Statistical data are 14.92 and 15.83. Find Mode ?

6. Distinguish between continuous and discrete random variables ?

7. State Simpson's (1/3)rd Rule.

8. Find the difference $\sqrt{6.37} - \sqrt{6.36}$ to three significant figures ?

9. Distinguish between Positive and Negative Correlation ?

10. Define Regression Analysis.

11. Define Event with an example.

12. What is Absolute measure of Dispersion?

$(8 \times 3 = 24 \text{ marks})$

Section B

Answer atleast **five** *questions.*
Each question carries 5 *marks.*
All questions can be attended.
Overall ceiling 25.

13. What are the desirable properties of a good measure of Dispersion ?

14. For the following data calculate Standard Deviation :

Marks	:	2	4	6	8	10
No.of students	:	8	10	16	9	7

Turn over

15. From the following data of values of x and y, Find the regression equation of y on x :

    X : 2 3 4 5 6

    Y : 3 5 4 8 9

16. Compare Mean, Median and Mode.

17. From the following table find the value of $x = 31.5$:

    X : 31 32 33 34 35 36

    Y : 2.49 2.50 2.51 2.53 2.54 2.56

18. Define the terms : (1) Mutually Exclusive Event ; (2) Exhaustive Events and (3) Dependent Events.

19. What are the merits and demerits of harmonic Mean ?

$(5 \times 5 = 25 \text{ marks})$

Section C

Answer any **one** *questions.*
Each question carries 11 *marks.*

20. From the following table of marks obtained by two students A and B in 10 tests of 100 marks each, Find out who is more intelligent and who is more consistent.

    A : 25 50 45 30 70 42 36 48 34 60

    B : 10 70 50 20 95 55 42 60 48 80

21. Find the root of the equation $x - \cos x = 0$ by Bisection Method.

$(1 \times 11 = 11 \text{ marks})$