Bachelor of Computer Application – II Third Semester (Old)
BCA232 - Statistics and Numerical Methods Paper – II

P. Pages : 2

Time : Three Hours

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0819

Max. Marks : 80

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Notes : 1. All the questions are compulsory and carry equal marks.
2. Draw neat and labelled diagram wherever necessary.
3. Avoid vague answers and write the answers relevant and specific to questions only.

1.   Either :

a)   Define statistics. Give its scope and importance.   **8**

b)   What is Harmonic mean? Calculate harmonic mean of the following.   **8**

Size	6 – 10	10 – 14	14 – 18	18 – 22	22 – 26	26 – 30
Frequency	5	7	12	15	9	2

OR

c)   Explain in detail about various methods for the presentation of statistical data.   **8**

d)   Calculate Mean, Median, Mode   **8**

Size	6	7	8	9	10	11	12
Frequency	5	8	10	12	7	6	4

2.   Either :

a)   Define Skewness. Calculate Quartile Skewness.   **8**

Age below	10	20	30	40	50	60
No. of persons	15	32	51	78	97	109

b)   Calculate coefficient of variation.   **8**

Item	20 – 30	30 – 50	50 – 100	100 – 200	200 – 355	355 – 555
Frequency	2	9	11	52	10	3

OR

c)   Calculate K. P. Coefficient of Skewness.   **8**

Sr. No.	1	2	3	4	5	6
Income in Rs.	10	20	30	40	50	60

d) Following table shows various values of two variables. **8**

X	42	44	58	55	89	98	66
Y	50	49	53	58	64	76	58

Find out
i) Coefficient of Correlation.
ii) Two regression equation.

3. Either :

a) Explain in detail Data Validation and Data Consolidation. **8**

b) Define Data Sort. Explain the procedure to import Data Sort. **8**

OR

c) What is the use of Data Regression in MS – Excel? Explain. **8**

d) Explain 'what – if' analysis in detail. Also write its uses. **8**

4. Either :

a) Find the round of errors in storing the number 285.4683 using a four digit Mantissa. **8**

b) What is error – propagation? Discuss error – propagation in product. **8**

OR

c) Evaluate the absolute and relative error for the function **8**
$f(x) = \sqrt{x} + x$ for $x = 4.000$

d) Discuss in detail about Blunders and Truncation error. **8**

5. Attempt all the questions.

a) What are the characteristics of Median? **4**

b) Explain in brief Skewness and Dispersion. **4**

c) Write the features of MS – Excel. **4**

d) Explain the importance of error estimation. **4**

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