UBCCAT301 - Statistics Techniques and Business Mathematics-I

P. Pages : 2   ‖‖‖‖‖‖‖‖‖   **GUG/W/23/10626**

Time : Three Hours   * 5 7 9 9 *   Max. Marks : 80

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Notes :   1.   All questions are compulsory.
         2.   All questions carry equal marks.

1.   a)   Explain the meaning and limitation of statistics.   **8**

     b)   Calculate Harmonic mean from the following.   **8**

Weight	55	58	60	64	68	70	75	82
No. of Person	3	4	6	6	3	5	2	1

OR

     c)   From the following information calculate mean, median & mode.   **16**

Marks	Above 0	10	20	30	40	50	60	70
No. of students	150	140	100	80	80	70	30	14

2.   a)   Find out quartile deviation.   **8**

Values	20	30	40	50	60	70	80	90
Frequency	3	8	10	12	16	14	5	2

     b)   Find out standard deviation and its co-efficient.   **8**

Size	10	12	14	17	19	20	21	24
Freq.	3	6	9	13	8	5	4	2

OR

     c)   From the following distribution calculate co-efficient of skewness by Karl Pearson's method.   **16**

Wages (in Rs.)	40 – 50	50 – 60	60 – 70	70 – 80	80 – 90	90 – 100	100 – 110	110 – 120
No. of workers	11	23	40	60	35	16	9	6

3.   a)   Calculate coefficient of correlation from the following series.   **8**

x	23	27	28	29	30	31	33	35	36	39
y	18	22	23	24	25	26	28	29	30	32

     b)   From the following data calculate coefficient of correlation by concurrent deviation method.   **8**

Marks in state	65	40	35	75	63	80	35	20	80	60	50
Marks in account	60	55	50	56	30	70	40	35	80	75	80

OR

     c)   Find coefficient of correlation between Age and playing habits of the following students.   **16**

Age	16	17	18	19	20	21	22
No. of students	250	200	150	120	100	80	60
Regular players	200	150	90	48	30	12	6

4. a) Mr. Akhil bought wood worth Rs. 60000 for making furniture. He spent Rs.4500 on transport & paid Rs.13500 as making charges. He sold the furniture for Rs.95250. How much did he gain or loss? **8**

b) A dishonest dealer prefer to sell his goods at cost price but used weight of 900 grams for 1kg. find out the gain percentage. **8**

OR

c) Mr. Vinayak bought 5 quintals wheat at the rate of Rs.8500 per quintal. He spent Rs.1000 on labour charges and for transportation. He than sold the wheat at 15% profit. What was the selling price? **8**

d) Mr. Sunil got total 120 marks out of 150 marks in three subjects of equal marks. He got 60% marks in the first subject 70% in second subject. How many marks he should got in third subject? **8**

5. Write answer in short.

a) Explain the importance of statistics. **4**

b) State the meaning of Range. **4**

c) Write types of correlation. **4**

d) Explain the term profit and loss. **4**

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