

B.C.C.A. (CBCS Pattern) Semester-III
UBCCAT301 - Statistics Techniques and Business Mathematics-I

P. Pages : 2

Time : Three Hours



GUG/S/25/10626

Max. Marks : 80

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

1. a) State the merits and demerits of statistics. 8
b) Calculate Harmonic mean from the following series. 8

1238
178.7
89.8
78.4
9.7
0.874
0.989
0.012
0.008
0.0009

OR

- c) Calculate mean, median & mode from the following distribution. 16

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

2. a) Calculate the semi interquartile range and Quartile co-efficient from the following. 8

Age in years	20	30	40	50	60	70	80
No. of members	3	61	132	153	140	51	3

- b) Calculate mean deviation from mean, median and mode. 8

M :-	36	23	32	20	15	15	15	12	12
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OR

- c) Following are the frequency distribution of Income in a Rs. of the employees in a business concern for the month of June 2012. 16

Monthly Income Less than	No. of employees
100	12
100-200	30
200-300	42
300-400	102
400-500	134
500-600	156
600-700	177
more than 700	190

calculate the co-efficient of skewness by Karl Pearson's formula and Bowley's formula.

3. a) Find Karl Pearson's co-efficient of co-relation from the following data. 8

Wages	100	101	102	102	100	99	97	98	96	95
Cost of living	98	99	99	97	95	92	95	94	90	91

- b) Calculate the co-efficient of concurrent deviation from data. 8

Month	Jan	Feb	Mar	April	May	June	July	Aug	Sept
Supply	160	164	172	182	166	170	178	192	186
Price	292	280	260	234	266	254	230	190	200

OR

- c) The following table gives the frequency according to age group of marks obtained by 67 students in intelligence test. 16

Marks	Age in years				Total
	18	19	20	21	
200-250	4	4	2	1	11
250-300	3	5	4	2	14
300-350	2	6	6	5	21
350-400	1	4	8	10	21
	10	19	20	18	67

4. a) Find the compound interest on Rs. 50,000 for 3 years at 10% for first year 12% for second year and 14% for third year. 8

- b) the population of a town is 1,76,400. It increases annually by 5%. What will be population
i) After 3 years 8
ii) Two years ago.

OR

- c) Mrs. Shobha has deposited Rs. 3,00,000 for 5 years at a certain rate and collected the simple interest Rs. 80,000. Find the simple interest of the same deposited for 6 years at the same Rate. 8

- d) It an parliamentary Election between Bhajpa & congress got 55% of the total valid votes. 20% of the votes were declared invalid. If the total votes were 7500. find the number of valid votes polled in favour of congress. 8

5. a) Explain the uses of statistics. 4

- b) State the merits of mean deviation. 4

- c) What are the properties of the co-efficient of correlation. 4

- d) A machine costing Rs. 2,50,000 sold for Rs. 1,50,000 after two years. Find out the percentage of loss or profit. 4
