UBCCAT301 - Statistics Techniques and Business Mathematics-I

P. Pages : 2

Time : Three Hours

2645

GUG/S/19/10626

Max. Marks : 80

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

1. a) Explain the definition of statistics & its functions ? **8**

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

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

OR

c) From the following data of the weight of 122 persons determine the modal weight calculate Mean, Median Mode **16**

Weight	No. of Student
100 - 110	4
110 - 120	6
120 - 130	20
130 - 140	32
140 - 150	33
150 - 160	17
160 - 170	8
170 - 180	2

2. a) Calculate Range and it's coefficient from the following series. **8**

Marks	10 - 19	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69
No. of students	6	10	16	14	8	4

b) Find out Mean Deviation from Median and its coefficient. **8**

Height	58	59	60	61	62	63	64	65	66
No. of student	15	20	32	35	33	22	20	10	8

OR

c) Sample of a particular quality if lamps from two companies he got the sample tested in his own laboratory for length of life with the following result. **16**

Length of Life	700 - 900	900 - 1100	1100 - 1300	1300 - 1500
Company A	10	16	26	8
Company B	3	42	12	3

Which company lamps are more uniform.

3. a) In the distribution consisting of 36 observation the values of P.E. is 0.150. Do you think correlation is significant ? **8**

b) Calculate coefficient of correlation between x and y series. **8**

x series	20	24	28	32	36
y series	14	18	22	26	30

OR

c) Calculate coefficient of correlation between Marks in Accountancy and Marks in statistics obtained by 70 students of a class also calculate probable Error. **16**

Marks in Statistics	Marks in Accountancy				
	25	35	45	55	65
25	-	-	-	1	1
35	-	-	3	8	7
45	-	2	6	13	9
55	1	5	3	4	-
65	2	3	2	-	-

4. a) Two washing machine cost Rs. 8,000 each. The first is one sold at profit of 15% and the profit is 3% when both machine are sold. Determine the % of the gain or loss occurred in selling the second machine. **8**

b) In a examination 70% candidates passed in Business Mathematics and 65% in financial accounting, while 15% failed in both the subjects. If 2700 candidate passed in both the subject. Find the total number of Student. **8**

OR

c) A trader buys 3 types of Tea at Rs. 54, Rs. 60, Rs. 72 per kg respectively. He prepare a mixture by adding these powder in the proportion of 5:7:8. At what price per kg should the mixture be sold to gain 20% profit on cost. **8**

d) A student of B.Com Final Scored marks a follows **8**
B.Com I = 65% of 700 marks
B.Com II = 60% of 700 marks
Find out % of marks he should score out of 600 marks at B.Com Final. If he want to score 66% marks in aggregate taking B.Com I II & III together.

5. Write short note on :

a) Merits of Statistics. **4**

b) Skewness **4**

c) What is mean by correlation **4**

d) Definition of percentage **4**

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