B.B.A.(with Credits)-Regular-Semester 2012 (Old Course) / (CBCS Pattern) Sem I

195 / UCB1C07 : Statistical Methods for Business-I

P. Pages : 3 **GUG/S/18/2922**

Time : Three Hours * 0 1 1 9 * Max. Marks : 80

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

1. a) Define Statistics and explain importance of statistics. **8**

b) The annual income of five families is given below calculate geometric mean and hormonic mean. **8**

S. No.	1	2	3	4	5
Annual Income in (Rs.)	5	10	192	14374	20498

OR

c) Calculate mean median and mode. **16**

Wages	No. of workers
Less than 20	4
Less than 30	16
Less than 40	56
Less than 50	97
Less than 60	124
Less than 70	137
Less than 80	146
Less than 90	150

4. a) Calculate Quartile Deviation and its co-efficient. **8**

Income in Rs.	No. of persons
Less than 40	5
Less than 50	27
Less than 60	90
Less than 70	164
Less than 80	194
Less than 90	200

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

Marks	No. of Students
More than 0	160
More than 10	145
More than 20	128
More than 30	110
More than 40	90
More than 50	77
More than 60	50
More than 70	26
More than 80	0

OR

c) Calculate Karl Pearsons co-efficient of skewness – **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 co-efficient of correlation between age of Husband and Wife. **8**

Age of Wife (in year)	Age of Husband (in year)
18	23
22	27
23	28
24	29
25	30
26	31
28	33
29	35
30	36
32	39

b) Find out correlation and probable error **8**
sum of products of corresponding deviation of x and y 782
Standard deviation of 'x' series 9.44
Standard deviation of 'y' series 8.33
No. of pairs 10

OR

c) Calculate co-efficient of correlation and its probable error. **16**

Marks in STBM

Marks in F/AC	20-30	30-40	40-50	50-60	60-70	Total
15-25	05	09	03	-	-	17
25-35	-	10	25	02	-	37
35-45	-	01	12	02	-	15
45-55	-	-	04	16	05	25
55-65	-	-	-	04	02	06
Total	5	20	44	24	7	100

4. a) Information available as under : **8**

Commodity	Base Year		Current Year	
	Price	Quantity	Price	Quantity
Dal	06	50	10	56
Rice	02	100	02	120
Wheat	04	160	06	60
Jawar	10	30	12	24
Sugar	08	40	12	36

Find Out :

i) Fisher Ideal Index Number
ii) Time Reversal Test
iii) Factor Reversal Test

b) Find out Index Number. **8**

Commodity	Quantity		Price	
	2015	2016	2015	2016
Sugar	16	20	50	16
Dalda	05	08	10	15
Ghee	04	06	20	25

by i) Laspeyres method
ii) Paasches method

OR

c) Construct Dorbish and Bowley Index and Fishers Ideal Index. **16**

Year	Rice		Wheat		Jawar	
	Price	Quantity	Price	Quantity	Price	Quantity
2015	04	50	03	10	02	05
2016	10	40	08	08	04	04

5. Write in brief :

a) Differentiate between primary data and secondary data. **4**

b) What is mean by Dispersion ? Explain its measures. **4**

c) Define correlation and explain its characteristics. **4**

d) Explain the limitations of Index Numbers. **4**

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