

B.B.A. (CBCS Pattern) Semester-I  
**UCB1C07 - Statistical Methods for Business-I**

P. Pages : 2

Time : Three Hours



**GUG/S/25/10589**

Max. Marks : 80

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

1. a) Define primary Data and explain its merits. 8  
b) Prepare Exclusive continuous series. 8

Marks upto	10	20	30	40	50	60	70	80
No of student	25	40	60	75	95	125	190	240

**OR**

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

Age :-	-10	-20	-30	-40	-50	-60	-70	-80
No of student :-	15	15	23	22	25	10	5	10

2. a) Calculate S'D from the following series. 8

Sr No =	A	B	C	D	E	F	G	H	I	J
Size of item =	15	16	18	20	22	23	25	26	27	28

- b) Find out  $Q_1$ ,  $Q_3$ ,  $Q_D$  and its co-efficient of  $Q_D$  . and inter quartile range. 8

Sr. NO	Marks
1	20
2	25
3	18
4	30
5	35
6	31
7	38
8	40
9	17
10	27
11	34
12	39

**OR**

- c) Find out SD, CV and coefficient of skewness 16

Weekly wages in Rs	No of worker
0-5	8
5-10	14
10-15	36
15-20	72
20-25	114
25-30	200
30-35	145
35-40	66
40-45	32
45-50	13

3. a) Given data :  $\eta = 100$ ;  $\Sigma dx = 8$ ;  $\Sigma dy = 34$ ;  $\Sigma dx^2 = 92$   $\Sigma dy^2 = 154$ ,  $\Sigma dx dy = 88$  calculate 'r'.
- b) Find out correlation :-
- |                                |                       |
|--------------------------------|-----------------------|
| 1) $\Sigma dx dy = 232$        | 2) $\eta = 25$        |
| 3) Standard deviation of x = 6 | 4) Variance of y = 81 |

**OR**

- c) The following table gives the classification of population and death by heart disease among them. Find out if there is any relation between the age of deaths:-

Age	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No of person	50	45	30	25	10	7	3	2
(in thousand) Death	40	27	36	40	18	20	10	10

4. a) Calculate fisher's index number's from the following data.

Commodities	Base year		Current year	
	Quantity	Price	Quantity	Price
Sugar	10	12	13	14
Oil	13	9	18	7
Dalda	22	7	18	11
Rice	3	18	4	16

- b) Calculate Laspeyre's method & Paasche's method

- a)  $\Sigma p_0 q_0 = 5250$                       b)  $\Sigma p^1 q_1 = 6664$   
c)  $\Sigma p_0 q_1 = 5040$                       d)  $\Sigma p_1 q_0 = 7280$

**OR**

- c) Find out index number for 2020 as a Base year :-

Commodities	2020		2021	
	Quantity in Unit	Total Exp	Quantity in Unit	Total Exp
A	20	40	15	75
B	4	16	5	40
C	10	10	12	24
D	5	25	6	60

- 1) Laspeyre's method
- 2) Paasche's method
- 3) Dorbish & Bowley's method
- 4) Fisher Index number.

- 5. Write short note:-**

- a) Importance of secondary data.

- b) Write merits of quartile deviation.

- c) Explain the types of correlation.

- d) State the use of index number.

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