CB 60:40

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**EXAMINATION: JUNE - 2022** 

**SEMESTER - II** 

**Sub.:** Business Statistics (BBA15- 214)

Date: 16/06/2022			otal Marks: 60	Time: 10.00am to 12.30pm
	Inst	ructions: 1) All questions are c 2) Figures to the righ		
Q. 1.		Choose the most appropriate of	option.	(05)
	1.	Median =Quartile		
		a) second	b) First	
		c) Fifth	d) Third	
	2.	A distribution with two modes is		
		a) Bi-modal	b) No mode	
	3.	c) Modal	d) Multimoda	l
	3.	10,12,23,17,13,9,17 then median	b) 9	
		a) 13 c) 12	d) 17	
	4.	105, 110, 98, 103, 105, 101,112	,	different colleges in first
	••	Year then mean=		
		a) 106	b)109	
		c) 112	d) 98	
	5.	P = 0.3 is probability then $q = -$		
		a) 0.7	b) 0.8	
		c) 0.6	d) 1	
Q. 2.		State True / False		(05)
	1.	C.V.(Professors)=12.50, C.V. efficient.	(Physicians)=17.39 then	professors are more
		a) True	b) False	
	2.	F0=12,fm=18,f1=14,modal cl	ass=45 – 49, then Mode=	47.5
		a) True	b) False	
	2	Median can be located grap	hically	
	3.	from the Histogram.	•	
		a) True	b) False	
	4.	Ogive curve is also called as cu	mulative	
		frequency curve. a) True	b) False	
	5	C.V = 60%, s.d.=12 then Mea	*	
	٥.	a) True	b) False	
		<i>u)</i> 11 <i>uc</i>	o) i disc	
Q. 3.		Write Short notes on (Any Th	ree)	(15)
	1.	Median		
	2.	Correlation coefficient		
	3.	Partition values		
	4.	Use of Statistics in Business		
	5.	Index Number		

## Q. 4. Answer in detail (Any Two)

(20)

1. In an agricultural experiment on the study of depth of water in the soil (x) in feet on yield of the crop in quintal per plot (y) the following data were obtained.

X	1.8	1.9	2.5	1.4	1.3	2.1	2.3
Y	200	370	450	160	90	440	380

Obtain the equation of line of regression of Y on X and estimate the yield when the depth of Water in the soil is 2 ft.

2. Compute Laspeyre's Passche's and Fisher's Index number for price from the following data given –

Commodity	$P_0$	$q_0$	$P_1$	$q_1$
A	100	10	120	12
В	120	08	150	10
С	250	09	380	15
D	500	04	700	10
Е	650	06	750	12

3. Find Karl Pearson's Correlation Coefficient for the following Data:

X	14	16	18	12	13	23	27	11	19	16
Y	28	22	21	29	20	30	24	25	21	20

## Q. 5. Case study (Any One)

1.

(15)

The number of items of an industrial product sold by two salesman A and B in ten months in an year are given below. From these data –

A	128	132	143	140	152	145	135	129	130	145
В	142	150	160	130	120	125	135	145	140	142

- i) Calculate Mean of A & B.
- ii) Estimate C.V. of both series A& B.
- iii) Compare both C.V
- iv) Write your result.
- 2. Given data –

X = advertising expenses ('000)

Y = Sales (lakhs)

X	39	65	62	90	82	75	25	98	36	78
Y	47	53	58	86	62	68	60	91	51	84

Estimate the Karl Pearson's correlation coefficient and write your decision.

- i) Calculate mean.
- ii) Estimate covariance.
- iii) Estimate Correlation coefficient
- iv) Write your decision.