Roll No. | | | | | | | | | |

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COER University

END SEMESTER EXAMINATION, EVEN SEM 2022-23

Time : 3 hours
Program Name : B.Com.(Honors/CFA)
Course Name : Business Statistics

Total Marks : 100
Semester : II
Course Code : UVC2009

Note: All questions are compulsory. No student is allowed to leave the examination hall before the completion of the time.

Q. No 1	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	"Statistics may be defined as the Science of collection, presentation, analysis and interpretation of numerical data" Comment.	CO 1	2
(b)	Define a pie diagram? Explain with example.	CO 1	1
(c)	Define a Line chart with example and explain why we use Line chart.	CO 1	1
(d)	Write short notes on Frequency Curve & Ogive.	CO 1	2
(e)	Define Ogive for the given table and why we use Ogive.	CO 1	1

x	0 - 5	5 - 10	10 - 15	15 – 20	20 – 25	25 -30	30 - 35	35 - 40
y	7	10	20	13	17	10	14	9

Q. No 2	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	Define stratified sampling with example.	CO 2	1
(b)	State the difference between judgmental sampling and Quota sampling.	CO 2	2
(c)	Define how many types of data and what are the methods of data collection.	CO 2	1
(d)	Explain the limitations of sampling method.	CO 2	2
(e)	Explain the difference between random sampling and systematic sampling with examples	CO 2	2

Q. No3	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	Find, D_5 for the frequency distribution of monthly income of workers in a factory :	CO 3	1

Income (in thousands)	0 - 4	4 - 8	8 - 12	12 - 16	16 - 20	20 - 24
No of persons	10	12	8	7	5	8

(b)	The following observations are arranged in ascending order. The median of the data is 25 find the value of x. 17, x, 24, x + 7, 35, 36, 46	CO 3	3
(c)	Compute median for the following data.	CO 3	3

Mid value	5	15	25	35	45	55	65	75
Frequency	7	10	15	17	8	4	6	7

(d)	From the following data, find the missing frequency when mean is 15.38. Size :- 10 12 14 16 18 20 Frequency -: 3 7 __ 20 8 5	CO 3	3
(e)	Find D_4 and D_8 for the following data : 10, 15, 7, 8, 12, 13, 14, 11, 9.	CO 3	1

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Q. No 4	Attempt Any Two Parts. Each Question Carries 10 Marks.	CO	BL
(a)	Compute the standard deviation for the following data about median : 6, 15, 4, 10, 12, 11, 5, 3, 16.	CO 4	3
(b)	Define standard deviation and coefficient of standard deviation. Also mention its merits and demerits	CO 4	1
(c)	Find Karl person's Coefficient of skewness for the following data :	CO 4	1

x	0 -10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60	60 – 70
y	10	12	18	25	16	14	8

Q. No 5	Attempt Any Two Parts. Each Question Carries 10 Marks.	CO	BL
(a)	Given $\bar{X} = 40, \bar{Y} = 6, \sigma_x = 10, \sigma_y = 1.5$ *and* $r = 0.9$ find the line of regression *of* x *on* y.	CO 5	3
(b)	From the following data find Karl Pearson's coefficient of correlation:- Height of father :- 66 68 69 72 65 59 62 67 61 71 Height of son :- 65 64 67 69 64 60 59 68 60 64	CO 5	1
(c)	The following regression equations were obtained from a correlation table $5y - 8x + 17 = 0$ *and* $2y - 5x + 14 = 0$ find (a) the correlation coefficient (b) the mean value of x(c) the mean value of y	CO 5	1

----------**End of Paper**----------