Program: F.Y.B.Sc DS | Semester: I | Program Code: UGDS03

Course: Descriptive Statistics | Course Code: NUDS102

Duration: 1 Hour | Examination Pattern: NEP-Autonomous - External. | Max. Marks: 30

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Draw neat diagrams wherever necessary.
4. CO (Course Outcome), KL (Knowledge Level).

Examination:

REGULAR

Q. 1		**Attempt any TWO of the following.**	[10]	CO's	KL's
	(a)	Draw frequency distribution curve for the following data:		CO1	L3

Class	10 – 20	20 – 30	30 – 40	40 – 50	50 – 70
Frequency	3	7	10	8	2

	(b)	Find mean for the following data:		CO2	L3

Class	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
Frequency	3	10	18	12	7

	(c)	Determine D_8 for grouped data:		CO2	L3

Class Interval	0 - 10	10 - 20	20 - 30	30 - 40	40 – 50
Frequency	5	12	20	8	5

	(d)	Calculate the mean deviation about median for the following data: 5, 1, 9, 6, 8, 4, 4, 5, 8.		CO3	L3
Q. 2		**Attempt any TWO of the following.**	[10]	CO's	KL's
	(a)	Calculate Pearson's correlation coefficient for the following data:		CO4	L3

x	1	2	3	4	5
y	3	2	7	8	10

	(b)	Calculate Spearman's Rank Correlation of the data:		CO4	L3

x	80	90	50	62	37
y	90	56	65	78	72

	(c)	Let $2x - 3y + 15 = 0$ and $3x - 4y + 10 = 0$ are line of regression, then find: i) $\bar{x}, \bar{y}$, ii) b_{xy}, b_{yx}, iii) r		CO5	L3

6 2 1 3 2 2

	(d)	Fit the curve $y = a \cdot b^x$, for the following data: x: 1, 2, 3, 4 y: 3, 6, 13, 26		CO5	L3
Q. 3		**Attempt any TWO of the following.**	**[10]**	**CO's**	**KL's**
	(a)	Find the mean of a moderately skewed frequency distribution if the median is 24.5 and the mode is 21.		**CO2**	**L3**
	(b)	Explain the following types of scales in statistics: Nominal, Ordinal, Interval, Ratio.		**CO1**	**L2**
	(c)	Explain seven types of coefficients of correlation.		**CO4**	**L2**
	(d)	Distinguish between coefficient of correlation and regression.		**CO4**	**L4**

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