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B.A. (Semester – VI) (Under CBCS Ordinance)

EXAMINATION APRIL -2023

ECONOMICS

Research Methodology-II

[Duration :2 Hours]

[Max. Marks: 80]

**Instructions:**

- 1) All questions are **compulsory**.
- 2) Draw **diagrams** wherever applicable.
- 3) Use of non-scientific calculator is allowed.
- 4) **Graph** paper will be provided on **request**.
- 5) Answer sub-questions in question 1 and 2 in not more than **100** words each.
- 6) Answer questions 3 to 6 in not more than **400** words.
- 7) Figures to the **right** indicate full marks.

Q.1 Answer **Any Four** questions given below:

16 Marks

- 1) Explain the bases of classification of data.
- 2) Draw a histogram for the following data:

Profits (Lakhs)	0-10	10-20	20-30	30-50	50-80
No. of firms	13	25	40	28	30

- 3) Draw less than ogive curve for the following data:

Wages	30-40	40-50	50-60	60-70	70-80	80-90	90-100
No. of workers	1	3	11	21	43	32	9

- 4) What do you mean by central tendency? What is the importance of measuring central tendency?
- 5) Delhi Transport Corporation (DTC) runs a number of buses on Mudrika route. A survey shows the time taken by each buses on this route.

Time in Minutes	100-110	110-120	120-130	130-140	140-150	150-160	160-170
No. of buses	23	45	50	36	29	11	6

Calculate the mean or average time taken by each buses on this route.

- 6) Find the median size of the shoes from the data given below:

Size	4	5	6	7	8	9	10	11
Frequency	2	6	10	20	15	8	7	3



**Q.2** Answer Any Four questions given below:

**16 Marks**

- 1) Explain the significance of literature review in social science research.
- 2) Distinguish between correlation and regression.
- 3) Distinguish between seasonal and irregular variations.
- 4) Briefly explain how a research report should be presented.
- 5) What is the importance of bibliography in research report?
- 6) What are the format requirements of a research article to be published in a professional journal?

**Q.3**

A. 1. Explain the significance and limitations of interview method.

**12 Marks**

**OR**

X. Write short notes on:

- a) Any three types of questionnaire method.
- b) Limitations of observation method.

**06 Marks**

**06 Marks**

**Q.4**

A. Explain how the measures of skewness and kurtosis can be used in describing a frequency distribution.

**12 Marks**

**OR**

X. (i) Calculate the median from the following data:

Value	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
frequency	4	12	24	36	20	16	8	5

(ii) Find the mean deviation from median and its coefficient for the following data.

**04Marks**

Age in years	20-28	28-36	36-44	44-52	52-60
No. of policy holders	8	25	30	35	2



(iii) Calculate the standard deviation in the following series of marks secured by a batch of 04 Marks students:

Marks	0-10	10-20	20-30	30-40	40-50
No. of students	2	7	10	5	3

Q.5 A. Explain the different forms of correlation with the help of a scatter diagram.

12 Marks

OR

X. A group of ten workers of a factory is ranked according to their efficiency by two different judges as follows.

06 Marks

Name of worker	A	B	C	D	E	F	G	H	I	J
Judgment of Judge A	4	8	6	7	1	3	2	5	10	9
Judgment of Judge B	3	9	6	5	1	2	4	7	8	10

Compute the coefficient rank correlation.

Y. Calculate Karl Pearson's correlation coefficient between the variables X and Y using the following data.

06 Marks

X	25	40	30	25	10	05	10	15	30	20
Y	10	25	40	15	20	40	28	22	15	05

Q.6 A. Compute the regression equation of X on Y and Y on X from the data given below: 12 Marks

X	14	13	11	10	9	8	7
Y	3	8	20	35	40	44	50

OR

X. Given below is the time series data on production of a certain firm.

06 Marks

Years	2004	2005	2006	2007	2008	2009	2010
Production	42	49	62	75	92	122	158

Fit a straight line trend to the above data and also estimate the trend for the year 2011.

Y. Calculate three yearly moving averages of policy holders of LIC branch given below. Also plot the original data and trend values on the same graph.

06 Marks

Year	1998	1999	2000	2001	2002	2003	2004	2005
No. of policy holders	35	38	42	45	42	41	50	48