TIM222060W **Reg. No :.....**

Name :.....

INTEGRATED M A PROGRAMME IN SOCIAL SCIENCES - ECONOMICS EXAMINATION, MARCH 2023

(2022 Admission Regular 2020 & 2021 Admissions Improvement/ Supplementary)

SEMESTER II - CORE COURSE

EC02C07IM20 - QUANTITATIVE METHODS IN ECONOMICS – I

Time : 3 Hours **Maximum Weight : 30**

Part A

I. Answer any Eight questions. Each question carries 1 weight **(8x1=8)**

1. Define Statistics.
2. What is a frequency polygon?
3. What is a mode?
4. What do you mean by arithmetic mean?
5. What is range?
6. What is quartile deviation?
7. What is linear and non-linear correlation?
8. What is coefficient of correlation?
9. What is Kurtosis?
10. What is asymmetrical distribution?

Part B

II. Answer any Six questions. Each question carries 2 weight **(6x2=12)**

11. Briefly explain the limitations of statistics.
12. Calculate median:

Size	5	8	10	15	20	25
Frequency	3	12	8	7	5	4

13. Calculate mean deviation from median and its coefficient for the following values:
    5, 28, 33, 44, 83, 87, 96, 99, 25, 35, 82
14. Find quartile deviation:

Size	5	8	10	12	19	20	32
Frequency	3	10	15	20	8	7	6

15. Coefficient of correlation between two variables is calculated to be -.98. Find the value of probable error and hence interpret the result (n = 10). Find the limits within which population correlation coefficient may lie.
16. Is there any correlation between X and Y?

X	200	270	340	310	400
Y	150	162	170	180	180

17. Find Karl Pearsons coefficient of skewness from the following data.

Size	5	8	10	12	15	18
Frequency	3	8	14	20	13	2

18. Define skewness. Also explain the test of skewness.

Part C

III. Answer any Two questions. Each question carries 5 weight **(2x5=10)**

19. Critically examine the nature of statistics.
20. Calculate mean and median from the following data:

No; of children	0-2	2-4	4-6	6-8	8-10	10-12	12-14
Families	42	26	26	35	60	45	50

Also state the merits and demerits of mean and median.

21. Find the correlation coefficient from the following data:

X	12	20	15	22	18	24	20	12	15	22
Y	30	35	28	36	29	39	30	25	30	38

Also, what are the uses of correlation?

22. Find the first four central moments from the data given below:

Class	10	20	30	40	50	60	70
Frequency	16	33	38	50	31	22	10