TB242463G

Reg. No :.....

Name :.....

Integrated M.A . Programme in Social Sciences (C.S.S) EXAMINATION, MARCH 2024

2023 ADMISSIONS REGULAR

SEMESTER II - CORE COURSE ECONOMICS

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. What is a discrete frequency distribution?
2. What do you mean by class interval?
3. What are quartiles?
4. What do you mean by a geometric mean?
5. What is mean deviation?
6. What is the measure to study economic inequality?
7. What is simple, partial and multiple correlation?
8. What do you mean by perfect correlation between two variables?
9. What is the use of measure of skewness?
10. What is a symmetrical distribution?

Part B

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

11. Briefly explain the limitations of statistics.
12. Find mode from the values 40, 20, 25, 60, 35, 81, 75, 90, 10.
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. What are the uses and disadvantages of Lorenz curev?
15. Briefly explain different kinds of correlation.
16. 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.
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. Find the first four central moments for the values given below:
    8, 10, 12, 7, 18

Part C

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

19. Explain some of the important types of graphical patterns used in 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 Karl Pearsons coefficient of correlation between the values of X and Y given below. Also find the probable error and interpret.

X	78	89	96	69	59	79	68	61
Y	125	137	156	112	107	136	123	108

Assume 69 and 112 as the mean values for X and Y respectively.

22. Calculate the first four moments about the mean for the following data.

X	1	2	3	4	5	6	7	8	9
f	1	6	13	25	30	22	9	5	2