TIM212060UR **Reg. No :.....**

Name :.....

INTEGRATED M A PROGRAMME IN SOCIAL SCIENCES - ECONOMICS EXAMINATION, MARCH 2022 / 2021

(2020 & 2021 Admission 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 do you mean by class interval?
2. What do you mean by univariate and bivariate frequency distribution?
3. What are quartiles?
4. What do you mean by a geometric mean?
5. What is range?
6. What is the measure to study economic inequality?
7. What is correlation?
8. What do you mean by there is no correlation between two variables?
9. What do you mean by positive skewness?
10. What is Kurtosis?

Part B

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

11. Differentiate between exclusive and inclusive method.
12. Calculate mean from the following data:

Value	5	15	25	35	45	55	65	75
Frequency	15	20	25	24	12	31	71	52

13. Find standard deviation using short cut formula taking 6 as assumed average:

Marks	2	4	6	8	10
No: of students	8	10	16	9	7

14. Find standard deviation of the values:
    4, 8, 10, 12, 15, 9, 7, 6, 5, 14
15. Find the coefficient of correlation between x and y and interpret the result.

X	12	11	19	18	10	9
Y	3	2	4	2	2	1

16. Briefly explain different kinds of correlation.
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. Given coefficient of skewness = -.23, mean = 47.2 and SD = 12. Find mode and median of the distribution.

Part C

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

19. Critically examine the nature of statistics.
20. Calculate mean, median and mode.

Marks	0-10	10-20	20-30	30-40	40-50	50-60
Frequency	5	15	0	40	32	2

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