Reg. No	 Name

B. A. DEGREE END SEMESTER EXAMINATION: OCTOBER 2022

SEMESTER - 5: ECONOMICS (CORE COURSE)

COURSE: 15U5CRECO07: QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS

(Common for Supplementary 2015/2016/2017/2018 admissions)

Time: Three Hours Max. Marks: 75

PART A

Answer all questions in one or two sentences. Each question carries 1 mark.

- 1. Simple Random Sampling
- 2. Inverse of a Matrix
- 3. Time series data
- Probability sampling 4.
- 5. Trend line
- 6. Histogram
- 7. Primary data
- 8. Sources of secondary data
- 9. Index Numbers
- 10. Variables

 $(1 \times 10 = 10)$

PART B

Answer any eight of the following in three or four sentences. Each question carries 2 marks.

- 11. Distinguish between primary data and secondary data?
- 12. Explain the functions of statistics
- 13. Explain the components of time series?
- 14. if n(A)=30, n(B)=40, and n(AUB)=45, find $n(A \cap B)$
- 15. Define Cartesian product. Give an example.
- 16. State the guidelines for preparing a questionnaire
- 17. What is the significance of Consumer Price Index Number?
- 18. Distinguish between frequency polygon and frequency curve
- 19. Define the method of Least Squares
- 20. Solve the following equation: 3x - y = 16, 2x + 2y = 16

 $(2 \times 8 = 16)$

PART C

Answer any five of the following in not more than one page. Each question carries 5 marks.

21. Calculate price index number for 2004 taking 1994 as the base year from the following data by simple aggregative method:

Commodities	А	В	С	D	E
Price(1994)Rs.	100	40	10	60	90
Price(2004) Rs.	140	60	20	70	100

- 22. What are the various methods of collecting statistical data?
- 23. Draw a histogram from the following table:

Class: 0-10 10-20 20-30 30-40 40-50 50-60 60-70 Freq: 5 14 20 24 27 18 12

- 24. What are the advantages and disadvantages of primary data?
- 25. Examine the role of statistics in economic analysis
- 26. Describe the different methods of set presentation
- 27. Explain the various methods of measuring trends values.

 $(5 \times 5 = 25)$

PART D

Answer any two of the following in not exceeding four pages. Each question carries 12 marks

- 28. Define sampling. Explain the various sampling techniques used in statistical investigation.
- 29. What is a Venn diagram? Explain the basic operations on sets with examples and also state its laws.
- 30. Enumerate the various methods of data collection used in Social Science Research.
- 31. Construct suitable index number and test whether it satisfies the tests of consistencies:

Commodity	Price in 2008	Quantity in 2008	Price in 2016	Quantity in 2016
Α	8	6	12	4
В	4	8	12	8
С	10	4	18	4
D	14	6	2	10
E	10	10	14	8

 $(12 \times 2 = 24)$