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# B. A. DEGREE END SEMESTER EXAMINATION: OCTOBER 2022 <br> SEMESTER - 5: ECONOMICS (CORE COURSE) COURSE: 15U5CRECO07: QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS 

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

## 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
4. Probability sampling
5. Trend line
6. Histogram
7. Primary data
8. Sources of secondary data
9. Index Numbers
10. Variables

## PART B

Answer any eight of the following in three or four sentences. Each question carries $\mathbf{2}$ 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 $n(A \cup B)=45$, 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: $3 x-y=16,2 x+2 y=16$

## 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 | A | B | C | 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.

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 <br>  <br>  <br>  <br> A | Price in 2016 | Quantity in |
| :--- | :--- | :--- | :--- | :--- |
| B | 8 | 6 |  | 2016 |
| C | 4 | 8 | 12 | 4 |
| D | 10 | 4 | 12 | 8 |
| E | 14 | 6 | 18 | 4 |
|  | 10 | 10 | 2 | 10 |
|  |  |  | 14 | 8 |

