TB145380A   Reg. No.: ....

                                                  Name:...........................

B. A. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2016
SEMESTER V - CORE COURSE (ECONOMICS)
ECO5QTE - QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS

Time: Three Hours   **Maximum Marks: 80**

PART A

I.   Write short notes on all the following questions. Each question carries 1 mark.

1.   Universal Set
2.   Histograms
3.   Time Series
4.   Statistics
5.   Transpose of a Matrix
6.   Dependent Variable
7.   Schedule
8.   Venn Diagram
9.   Marshall- Edgeworth Index number
10.   Sampling

                                                  (10×1=10)

PART B

II.   Answer any eight of the following. Each question carries 2 marks.

11.   What are Real numbers? Explain its properties.
12.   If U={1,2,3,4,5,6,7,8,9,10}, A={2,3,4,5,8}, B={5,6,7,8}, C={2,3,5,6 }
      Find i) (A' B)   ii) (B' C')
13.   Define Census method. What are its advantages?
14.   "Index numbers serve as economic barometers."Elucidate.
15.   Briefly explain the methods by which Primary Data can be collected?
16.   Distinguish between Equality of sets and Equivalent sets.
17.   What is Secondary Data and what are its various sources?
18.   Calculate Laspeyer's Index number

Year	Price		Quantity	
	Base Year(P_0)	Current Year(P_1)	Base Year(q_0)	Current Year(q_1)
A	4	5	10	8
B	3	6	15	5
C	5	4	8	12
D	2	3	20	15

19.   Define Functions. Give examples of Economic functions.
20.   What are the essentials of a good questionnaire?
21.   What are the characteristics of Index numbers?

22. What are the steps involved in Time series analysis?

(8×2=16)

PART C
III. Answer any six of the following. Each question carries 4 marks.

23. Explain the different tests of Index numbers.
24. What is the role of statistics in economic analysis?
25. Define a Matrix. What are the different types of Matrices?
26. Fit a Trend line using the Semi Average method

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015
Profit (in millions)	10	15	12	17	18	14	18	22	26

27**.** What are the different methods of describing a Set?
28. By means of Venn diagram prove that (A B)' =A'U B' and (AUB)'=A' B'

29. Explain the importance and components of Time series analysis.
30. Construct a Histogram using the following data:

Marks in Economics	0-10	10-20	20-30	30-40	40-50	50-60
No. Of students	2	6	12	24	6	15

31. What are the different steps followed in a statistical enquiry?

(6×4=24)

PART D
IV. Answer any two of the following. Each question carries 15 marks.

32. Define Index numbers. What are the steps involved in the construction of an Index number?
33. What is a Cumulative Frequency curve? Draw the two Ogives for the following data on the same graph:

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70
No. of students	2	4	6	10	12	6	10

34. Explain the organisation and functioning of CSO and NSSO.
35. Define the basic set operations and illustrate them using Venn diagram.

(2×15=30)