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Name.....

Reg. No.....

THIRD SEMESTER B.A. DEGREE (SUPPLEMENTARY/IMPROVEMENT) EXAMINATION, NOVEMBER 2015

(UG—CCSS)

Core Course—Economics

EC 3B 03—QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS–I

(2013 Admissions)

Time : Three Hours

Maximum : 30 Weightage

Part I (Objective Type Questions)

(Include Multiple Choice, Fill in the blanks and Answer in Single Word)

Answer all **twelve** *questions.*

1. The most frequently occuring value of a variable is called :

   (a) Mean. (b) Median.

   (c) Mode. (d) S.D.

2. The Standard deviation of the values : 5, 5, 5, 5 is :

   (a) 0. (b) 5.

   (c) 20. (d) 5^4.

3. Which of the following index number satisfies the time reversal test and factor reversal test ?

   (a) Fisher's I.N. (b) Kelly's I.N.

   (c) Marshall-Edgeworth I.N. (d) Laspeyre's I.N.

4. Econometrics is a combination of Economic theory, Mathematical Economics and ———.

   (a) Demography. (b) History.

   (c) Physics. (d) Statistics.

5. Arithmetic mean of lower and upper limits of a class is called ———.

6. A representative sub-group of a population is called a ——— of that population.

7. If $r_{x, y} = 0.4$ then $r_{2x, 2y}$ = ———. where r stands for Karl Pearson's corelation coefficient.

8. The maximum possible value of correlation coefficient is ———.

9. If Laspeyre's and Paasche's indices are 122 and 124, then Fisher's I.N. is ———.

Turn over

10. The 3-point moving average of the values 10, 11, 12 is ————.
11. The coefficient of elasticity always varies between 0 and ————.
12. The first stage in any Econometric research is ————.

(12 × ¼ = 3 weightage)

Part II (Short Answer Type Questions)

Answer all **nine** *questions.*

13. What is a nominal variable ? Give an example.
14. What is meant by seasonal variation ?
15. Distinguish between positive and negative correlation.
16. Explain the method of calculating Spearman's rank correlation coefficient.
17. Discuss the terms 'splicing' and 'deflating'.
18. Mention any two uses of consumer price index number.
19. What is meant by NSE-NIFTY ?
20. Write down the normal equations involved in fitting a straight line $Y = a + bx$ by the method of least squares.
21. Mention any two limitations of Econometrics.

(9 × 1 = 9 weightage)

Part III (Short Essay or Paragraph Questions)

Answer any **five** *questions from seven.*

22. Explain the procedure of constructing a histogram.
23. Explain the desirable characteristics of a good average.
24. Explain Scatter diagram method.
25. What are regression lines ? Why there are two regression lines ?
26. Explain the time reversal test and factor reversal test.
27. Write a short note on consumer price index.
28. What are the various steps involved in an Econometric Research ?

(5 × 2 = 10 weightage)

Part IV (Essay Questions)

Answer any **two** *questions from three.*

29. Calculate : (i) mean ; (ii) median ; (iii) standard deviation and ; (iv) range from the following data : 11, 13, 14, 15, 30, 12, 14, 16, 19, 22.

30. A study on the effect of bus ticket prices upon the number of passengers produced the following data :

Ticket price (Rs.)	15	20	25	30	40	50
Passengers per 10 km.	440	430	450	370	340	370

(i) Plot these data.

(ii) Develop the estimating equations that best describes the data.

(iii) Predict the number of passengers per 10 kms if the ticket price were Rs. 35.

31. (i) Explain the different components of a time series.

(ii) A survey by the national dairy products association produced the following data. Construct Laspeyre's index, taking 2001 as the base year :

Product	*Average price per unit*		*Total quantity* 2001
	2001	2005	
Cheese	145	149	26
Milk	160	165	276
Butter	70	80	31

(2 × 4 = 8 weightage)