

FOURTH SEMESTER B.A. DEGREE (SUPPLEMENTARY) EXAMINATION
APRIL 2017

(UG—CCSS)

Economics

EC 4B 05—QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS—II

(2009—2012 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.*

- Lorenz curve is used to measure :
 - Skewness.
 - Kurtosis.
 - Dispersion.
 - Central tendency.
- The value of the correlation coefficient ' r ' when the two regression lines coincide :
 - $r > 0$.
 - $r < 1$.
 - $r = 0$.
 - $r = 1$.
- Mean weight of 8 observations is 9. A new observation 18 is added, then mean weight of 9 observations is :
 - 8.
 - 9.
 - 10.
 - None of these.
- The lines of regression intersect at the point :
 - (\bar{x}, \bar{y}) .
 - (x, y) .
 - $(0, 0)$.
 - $(1, 1)$.
- When there is perfect negative correlation the value of the coefficient of correlation is ———.
- Death rate obtained for a segment of the population is known as ———.

Tur

7. We use stratified sampling when the population is _____.
8. The point of intersection of less than and greater than ogive is _____.
9. Write the equation to calculate coefficient of quartile deviation ?
10. Which index number has current year quantity as weight ?
11. The only graphic method to determine dispersion.
12. What is the symbol used to denote standard deviation ?

(12 × ¾ = 3 weightage)

Part II (Short Answer Type Questions)

Answer all **nine** questions.

13. What is Pie diagram?
14. Estimate mode given mean is 25 and median is 27.
15. What do you mean by regression?
16. Define Kurtosis.
17. Distinguish between Correlation and Regression.
18. Define Stratified Sampling.
19. Define Net Reproduction Rate.
20. What is a moving average ?
21. What is factor reversal test ?

(9 × 1 = 9 weightage)

Part III (Short Essay or Paragraph Questions)

Answer any **five** questions from seven.

22. Fit a straight line trend by the method of least squares :

Year	2005	2006	2007	2008	2009	2010	2011
Production (000' tonnes)	10	13	12	14	12	16	14

Estimate the most likely production for 2012.

23. Define the terms : Crude Birth Rates, Crude Death Rates and Specific Fertility Rates.
24. Explain correlation coefficient.

25. Calculate Fisher's ideal index number for the following data :

Commodity	2008		2009	
	Price	Expenditure	Price	Expenditure
A	4	32	5	40
B	5	50	6	72
C	3	18	4	28
D	8	40	10	40

26. What are the properties of an average ?
27. The following table gives the population of India on the basis of region according to 1961 census represents it by Pie diagram.
28. What are the advantages of Sampling over Census ?

Religion	Hindu	Muslim	Christian	others
Population (in Lakhs)	3665	469	10	248

(5 × 2 = 10 weightage)

Part IV (Essay Questions)

Answer any **two** questions from three.

29. Briefly explain the various methods of sampling.
30. What are index numbers ? Explain the problems involved in the construction of index number.
31. For ten observations each on price (X) and supply (Y), the following data are obtained :

$$\Sigma X = 130, \Sigma Y = 220, \Sigma XY = 3467$$

$$\Sigma X^2 = 2228, \Sigma Y^2 = 5506.$$

Determine two regression equations.

(2 × 4 = 8 weightage)