C 5210

(Pages : 4) Name.....

Reg. No.....

FOURTH SEMESTER B.A. DEGREE (SUPPLEMENTARY/IMPROVEMENT) EXAMINATION, MAY 2016

(UG—CCSS)

Core Course—Economics

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

(2009–2012 Admissions)

Time : Three Hours Maximum : 30 Weightag

Part I (Objective Type Questions)

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

Answer all **twelve** *questions.*

1. For a negatively skewed distribution :

   (a) Mode > Median. (b) Mean > Median.

   (c) Mean < Mode. (d) Mean > Mode.

2. Median is :

   (a) Q_3. (b) Q_2.

   (c) P_5. (d) D_2.

3. Fishers formula satisfies :

   (a) Time reversal test. (b) Unit test.

   (c) Factor reversal test (d) All.

4. The mean of 7 numbers is 13 and the mean of 13 numbers is 7. What is the mean of all numbers ?

   (a) 18.2. (b) 9.37.

   (c) 10. (d) 9.1.

5. In a town there were 759 deaths during the year. If the population of that year was 69000, crude death rate is ———.

6. When measure of kurtosis is greater than 3, the distribution is ———.

Turn

7. The best t average for index number construction is ————.

8. Scatter diagrams are used to study ————.

9. $b_{yx} \times b_{xy}$ is equal to :

10. If one regression coefficient is negative the other must be :

11. Semi-interquartile range is also called :

12. The farther the Lorenz curve from the line of equal distribution the variability is :

(12 × ¼ = 3 weighta

Part II (Short Answer Type Questions)

Answer all **nine** *questions.*

13. Define population and sample.

14. What are the components of a time series ?

15. Define Gross Reproduction Rate.

16. Distinguish between vital event and vital statistics.

17. Mention *two* situations where sampling is indispensable.

18. Explain the concept Histogram.

19. Distinguish between matheimatical and positional averages.

20. Find Median of the following data :

X	5	8	10	12
f	2	3	4	1

21. What is a moving average ?

(9 × 1 = 9 weightag

Part III (Short Essay or paragraph Questions)

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

22. Calculate age specific fertility rate from the following table :

Age Group	*No. of Women*	*No. of births*
15 – 19	3608	519
20 – 24	3508	925
25 – 29	3392	829
30 – 34	3197	602
35 – 39	2914	373
40 – 44	2602	129
45 – 49	2291	40

23. Draw Lorenz curves for the following data which give the members of family belonging to two regions A and B according to their income :

Income (Rs.)	*Region A*	*Region B*
2,500	6	8
5,000	9	12
7,500	15	18
10,000	6	8
12,500	4	4

24. What are the advantages of Sampling over Census ?

25. Compute Crude Death Rate from the following data :

Age Group (Years)	*Population*	*Deaths*
Under 5	5,000	120
5 – 15	9,000	18
15 – 65	11,000	55
Above 65	3,000	210

Turn ove

26. Explain correlation coefficient.

27. Define the terms : Crude Birth Rates, Crude Death Rates and Specific Fertility Rates.

28. What are fixed base and chain base index numbers ?

(5 × 2 = 10 weightage)

Part IV (Essay Questions)

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

29. Define index numbers. Explain the difficulties in the construction of index numbers.

30. Construct Fisher's ideal index for the following data and show how it satisfies Time Reversal test and Factor Reversal test :

Commodities	2002		2003	
	Price	*Expenditure*	*Price*	*Expenditure*
A	10	100	12	144
B	15	75	20	120
C	8	80	10	110
D	20	60	25	50
E	50	500	60	540

31. The following are the figures of production in thousand quintals of a sugar factory :

Year	2000	2002	2004	2006	2008	2010	2012
Production	77	81	88	94	94	96	98

Fit a trend line using least squares method.

(2 × 4 = 8 weightage)