(Pages : 3)

E – 1616

Reg. No. : .....

Name : .....

Sixth Semester B.A. Degree Examination, April 2018
First Degree Programme under CBCSS
Branch : ECONOMICS
Core XIII
EC 1643 – Basic Tools for Economics – II
(2015 Admissions)

Time : 3 Hours

Max. Marks : 80

All Saints' College Trivandrum

SECTION – I

Answer **all** questions in **one** or **two** sentences. **Each** question carries **one** mark.

1. Zero-Order Correlation.
2. Base shifting.
3. Equal Sets.
4. Discrete Distribution.
5. Sample Space.
6. Equally Likely events.
7. Random experiment.
8. Multiple Linear regression.
9. Permutation.
10. Singleton set.

(10×1=10 Marks)

SECTION – II

Answer **any 8** questions, **not** exceeding **one** paragraph. **Each** question carries **two** marks.

11. Bay's theorem.
12. Ideal formula under Index number.
13. Line of best fit.
14. Multiplication rule.
15. Consumer Price Index.
16. Normal Distribution.
17. Random Variable.
18. Classical definition of Probability.
19. Power set.
20. Fishers Ideal Index Method.
21. Coefficient of non-determination.
22. Circular test.

(8×2=16 Marks)

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SECTION – III

Answer **any six** questions, **not** exceeding **120** words. **Each** question carries **4** marks.

23. We pick a card from a deck of 52 cards. Find the probability of getting a red ace or a black king.
24. Explain the properties of coefficient of determination.
25. A jar contains 3 red beads, 7 green beads and 10 white beads. If beads are drawn from the jar at random, what is the probability that this bead is white ?
26. What is the probability of the occurrence of a number that is odd or less than 5 when a fair die is rolled ?

27. Explain the various methods of index numbers.

28. In an equation on correlation the value of 'r' is 0.917 and probable error is 0.034, what is the value of 'N' ?

29. Describe the Properties of Regression coefficient.

30. Karl Pearson's coefficient of correlation between two variables X and Y is 0.28, their covariance is 7.6. If the variance of X is 9, find the standard deviation of Y series.

31. Differentiate between regression from correlation. **(6×4=24 Marks)**

SECTION – IV

Answer **any two** questions, **not** exceeding **four** pages. **Each** question carries **15** marks.

32. Calculate the rank correlation coefficient of the following data ?

Roll number of students	1	2	3	4	5	6	7	8	9	10
Marks in economics	78	36	98	25	75	82	90	62	65	69
Marks in statistics	84	51	91	60	68	62	86	58	53	47

33. What is index number ? Explain the characteristics, uses and types of index numbers.

34. When two dice are rolled, find the probability of getting a greater number on the first die than the one on the second, given that the sum should equal to 8.

35. Define correlation. Explain the various types of correlation. **(2×15=30 Marks)**

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