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G – 1375

Reg. No. : .....

Name : .....

**Sixth Semester B.A. Degree Examination, April 2019**  
**First Degree Programme under CBCSS**  
**ECONOMICS**  
**Core Course – XIII**  
**EC 1643 : Basic Tools for Economics – II**  
**(2015 Admission Onwards)**

Time : 3 Hours

Max. Marks : 80

SECTION – I

Answer **all** questions in **one** or **two** sentences. **Each** question carries **1** mark.

1. Disjoint set.
2. Mutually exclusive events.
3. Sample space.
4. Correlation coefficient.
5. Random variable.
6. CPI.
7. Probable error.
8. Venn diagram.
9. Probability.
10. Index numbers.

(10×1=10 Marks)

SECTION – II

Answer **any eight** questions **not** exceeding **one** paragraph. **Each** question carries **2** marks.

11. Karl Pearson's correlation coefficient.

P.T.O.



12. Continuous distribution.
13. Partial correlation.
14. Regression coefficient.
15. Base shifting.
16. Paasche's index number.
17. Characteristics of Binomial distribution.
18. Addition rule of probability.
19. Properties of regression lines.
20. Positive and negative correlation.
21. Basic set operations.
22. Mathematical expectations.

(8×2=16 Marks)

SECTION – III

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

23. Distinguish between simple and weighted index numbers.
24. What are the main uses of index numbers ?
25. If  $A = \{1, 2, 3, 4\}$ ,  $B = \{2, 3, 4, 5\}$ ,  $C = \{1, 3, 4, 5, 6, 7\}$ . Verify that  $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$ .
26. Explain the addition and multiplication rule of probability.
27. While computing rank correlation coefficient between profit and investment for 10 years of a firm, the difference in rank for a year was taken as 7 instead of 5 by mistake and the value of rank correlation coefficient was computed as 0.80. What would be the correct value of rank correlation after rectifying the mistake ?
28. Explain the method of least squares.
29. Write a short essay on Fischer's ideal index number.



30. Explain scatter diagrams.

31. Discuss the method of splicing.

(6x4=24 Marks)

SECTION - IV

Answer **any two** questions **not** exceeding **120** words. **Each** question carries **15** marks.

32. Calculate Karl Pearson coefficient of correlation and also comment on the result.

<b>Price</b>	11	12	13	14	15	16	17	18	19	20
<b>Demand</b>	30	29	29	25	24	24	24	21	18	15

33. Write an essay on the meaning and types correlation.

34. Find Fischer's index number.

Items	A		B		C	
	Price	Value	Price	Value	Price	Value
2017	5	15	4	24	10	70
2018	8	32	9	72	13	65

35. What is a normal distribution ? What are the properties of normal distribution ?

(2x15=30 Marks)

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