



K16U 1684

Reg. No. : .....

Name : .....

V Semester B.A. Degree (CBCSS-2014 Admn. – Regular) Examination,  
November 2016

**CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS**  
**5B07 ECO : Basic Tools for Economic Analysis – I**

Max. Marks : 40

Time : 3 Hours

**PART – A**

Answer **all** questions. **Each** question carries **one** mark.

1. What is compound growth rate ?
2. Distinguish between equal sets and equivalent sets.
3. What are the properties of probability distribution ?
4. Define Kurtosis.

(4x1=4)

**PART – B**

Answer **any seven** questions. **Each** question carries **2** marks.

5. Calculate the quartile deviation for the following data of annual incomes of 100 families.

Annual income	Less than 499	500-599	1000-1999	2000-2999	above 3000
No. of families	5	25	40	20	10

6. Given A, B, C are independent events  $P(A) = 0.3$ ,  $P(B) = 0.2$  and  $P(C) = 0.4$ . Find the probability for (a) all occurring (b) none occurring (c) atleast one occurring (d) exactly one occurring.



7. Explain the collection of data.
8. Distinguish between linear and quadratic function.
9. Solve the equation  $4x + \frac{6}{x} = 10$ .
10. Distinguish between sample point and sample space.
11. Explain the set operations with suitable examples.
12. The probability that A solves a problem in Maths is  $\frac{3}{5}$  and the probability that B solves is  $\frac{2}{7}$ . If they tried independently find the probability that (i) both solve the problem (ii) none solves the problem (iii) atleast one solve the problem.
13. Solve :  $4x + 3y = 2x + 7$   
 $3x = 3y + 2x - 1$
14. Examine the Lorenze curve and Gini coefficient. (7×2=14)

### PART – C

Answer **any four** questions. **Each** question carries **3** marks.

15. A company sells  $x$  tins of talcum powder each day at Rs. 30 a tin. The cost of manufacturing and selling these tins is Rs. 20 per tin plus a fixed daily overhead cost of Rs. 1,000. Determine (1) cost function (2) revenue function (3) profit function. What are the total cost, total revenue and total profit when 1000 tins are manufactured and sold a day? What is the average cost when 10 units are produced?
16. Explain skewness. What are the measures of skewness?
17. Compare Bar-diagrams and Pie-diagrams.



- 18. Distinguish between indifference curves and isoquants. What are the properties of indifference curve ?
- 19. Find two natural numbers whose sum is 16 and product is 64.
- 20. What are measures of dispersion ?

(4×3=12)

PART - D

Answer **any two** questions. **Each** question carries **5** marks.

- 21. Explain the measures of central tendency.
- 22. Explain the addition and multiplication rules of probability. Give suitable examples.
- 23. Solve :  $7x - 4y - 20z = 0$   
 $10x - 13y - 14z = 0$   
 $3x + 4y - 9z = 11.$
- 24. What are economic curves ? Explain any six of them with suitable graphs.

(2×5=10)

Answer any seven questions. Each question carries 2 marks.

5. Calculate the quartile deviation for the following data of annual incomes of 100 families.

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No. of families	5	25	40	20	10

6. Given A, B, C are independent events  $P(A) = 0.3$ ,  $P(B) = 0.2$  and  $P(C) = 0.4$ . Find the probability for (a) all occurring (b) none occurring (c) atleast one occurring (d) exactly one occurring