



M 7266

Reg. No. :

Name :

V Semester B.A. Degree (CCSS – Reg./Supple/Imp.)
Examination, November 2014
CORE COURSE IN ECONOMICS / DEVELOPMENT ECONOMICS
5B07 ECO : Basic Tools for Economic Analysis – I
(2012 Admission)

Time : 3 Hours

Max. Weightage : 30

Instruction : Answer may be written either in **English** or in **Malayalam**.

PART – A

Objective type questions (in bunches of **two**).

I. Choose the correct answer

1) $\{0\}$ is an example of

- a) Null set b) Singleton set
c) Equivalent set d) Equal set

2) _____ is a statement of equality between two expressions.

- a) An equation b) A function
c) A set d) A variable

3) _____ is the value of that item which occupies the central position, when the items arranged in ascending or descending order of their magnitude.

- a) Mean b) Median
c) Mode d) None of these

4) _____ diagram consists of a set of separated rectangles.

- a) Line b) Pie
c) Bar d) Cartograms

(Weightage : 1)

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II. 5) _____ is excess of revenue over the cost of production.

- a) Utility b) Profit
c) Revenue d) Cost

6) Set of real numbers consists of

- a) Rational numbers b) Irrational numbers
c) Both of them d) None of these

7) If $3x = 6$, the x is equal to

- a) 2 b) 4 c) 6 d) 8

8) Consider a function $y = x^2$, this function is called

- a) Multivariate function b) Exponential function
c) Explicit function d) Implicit function

(Weightage : 1)

PART - B

Short answer questions. Answer **any ten** questions of the following **not** exceeding **50 words each**. **Each** question carries **1** weightage.

9. What is production-possibility curve ?
10. Define Lorenze-Curve.
11. What are natural numbers ?
12. What is probability ? ✓
13. Define arithmetic mean ?
14. Define standard deviation.
15. What is market equilibrium ?
16. Define quartiles. What are their uses ?
17. What is a frequency polygon ?
18. Explain tabulation of data.
19. Distinguish equal sets and equivalent sets.
20. Explain system of linear equations.

(Weightage $10 \times 1 = 10$)



PART - C

Short Essay : Answer **any five** questions **not** exceeding **150** words **each**. Each question carries **2** weightage.

21. What is probability ? Explain Bionomial and Poisson distributions.

22. Calculate the geometric mean for the following distribution :

Weight of Parts (in grams)	No. of Parts
100 - 104	24
105 - 109	30
110 - 114	45
115 - 119	65
120 - 124	72
125 - 129	84
130 - 134	124
135 - 139	58

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23. The following data gives the income of individuals in two cities. Draw the Lorenze curves and comment on the distribution of income in both places.

Income (Rs.)	1,00,000	2,00,000	4,00,000	5,00,000	8,00,000
City A :					
No. of Persons in 000's	80	70	50	30	20
City B :					
No. of Persons in 000's	150	60	20	10	10

24. A man sells 7 mats and 8 sheets at Rs. 2,940 and 5 mats and 6 sheets at Rs. 2,150. What is the selling price of each ?

25. Explain important laws of set operations with simple examples.

26. Draw the graph of $x^2 = 4y$.

27. Distinguish range and quartile deviation.

(Weightage 5x2= 10)



PART - D

Long Essay : Answer **any two** questions **not** exceeding **450** words **each**. **Each** question carries 4 weightage.

28. Find Karl-Pearson's coefficient of skewness from the following distribution :

Wages :	70 - 80	80 - 90	90 - 100	100 - 110	110 - 120	120 - 130	130 - 140	140 - 150
No. of Persons :	12	18	35	42	50	45	20	8

29. Explain the measures of central tendency.

30. Solve the simultaneous equations :

a) $x - y = 2$

$2x^2 + 5y^2 = 23$

b) $x + y = 12$

$x^2 + y^2 = 74$.

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31. The cost of manufacturing and selling a packet of ice-cream powder is Rs. 15, with a fixed overhead cost of Rs. 900. Each is sold out of Rs. 20 per packet. Determine :

a) Cost function

b) Revenue function

c) Profit function

d) What is profit if 1000 packets are manufactured and sold ? **(Weightage 2x4=8)**