

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)

P.T.O.



PART – C

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

- 21. What is probability ? Explain Binomial 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

- 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) $x + y = 12$

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

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 2×4=8)**