



Reg. No. :

Name :

V Semester B.A. Degree (CBCSS – Reg./Sup./Imp.)

Examination, November 2020

(2014 Admn. Onwards)

CORE COURSE IN ECONOMICS/DEVELOPMENT ECONOMICS

5B07 ECO : Basic Tools for Economic Analysis – I

Time : 3 Hours

Max. Marks : 40

PART – A

Answer **all** questions and **each** question carries **1** mark :

1. Descriptive statistics.
2. Real numbers.
3. Function.
4. Sample space.

(4×1=4)

PART – B

Short answer type questions, answer **any 7** questions and **each** question carries **2** marks :

5. Solve $\frac{2}{x+7} = \frac{4}{x}$.

6. Find the equation of a straight line passing through the point (4, 5) and whose slope is 6.

7. Find the AP of 6 terms, if the first term is $\frac{2}{3}$ and the last term is $\frac{22}{3}$.

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8. In an examination written by 100 students, 48 students passed in mathematics, 40 students in economics and 25 students passed in both. How many students have failed in these two subject ?
9. Discuss the distributive law of set theory.
10. Properties of Arithmetic Mean.
11. The rate of increasing in population of India during the last three decades is 5%, 8% and 12%, then the average rate growth is
12. The average mark declared by a teacher in a class test is 180. The class consists of only 100 students. Later on it was discovered that a student's mark was misread as 220 instead of 120. Find the correct average mark.
13. Simple event and compound event.
14. In Tossing a coin thrice, let event, A : there is exactly one head and B : there are at least two head. Find out $P(A \cup B)$?

(7×2=14)

PART – C

Short essay type questions. Answer **any 4** questions and **each** question carries 3 marks :

15. Find the value of $\frac{(18.4)^{1/3}(1.922)^2}{\sqrt{(1.12)(0.85)}}$.
16. Find the equilibrium price and quantity, if supply and demand functions are
 $D = 100 - 6p$
 $S = 28 + 39p$.
17. Find the slope and Y-intercept of the function $2Y = 12x - 6$.
18. What are the various types of statistical graphs and diagrams used in economics ?
19. Consider the values 32, 35, 36, 37, 39, 41 and 43. Show that $AM > GM > HM$.
20. An urn contains 10 black and 5 white balls. Two balls are drawn from the urn one after the other without replacement. What is the probability that both drawn balls are black ?

(4×3=12)



PART – D

Essay type questions. Answer **any 2** questions and **each** question carries **5** marks :

21. Solve :

$$x + y = 7$$

$$y + z = 9$$

$$z + x = 8.$$

22. What are the various types of function and discuss its uses in economics ?

23. Calculate the coefficient of Skewness from the following data and comment the result :

| | | | | | | | | |
|----------|------|-------|-------|-------|-------|-------|-------|-------|
| X | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 |
| f | 6 | 12 | 22 | 48 | 56 | 32 | 18 | 6 |

24. Discuss the various approaches to probability.

(2×5=10)
