D 21493-A (Pages : 2) Name.....

Reg. No.....

THIRD SEMESTER B.Com./B.B.A. DEGREE EXAMINATION, DECEMBER 2011

(CCSS)

Common Course

BC 3A 13—BASIC NUMERICAL SKILLS

(Common for B.Com./B.B.A.)

Time : Three Hours Maximum Weightage : 30

I. Objective Type Questions. Answer *all* twelve questions :

Choose the correct answer :

1. The common difference of the A.P. 1, – 1, – 3, – 5 ..... is :
   (a) 1. (b) –1. (c) –2. (d) 2.
2. The quadratic equation $ax^2 + bx + c = 0$ has equal roots if :
   (a) $b^2 - 4ac < 0$. (b) $b^2 - 4ac > 0$. (c) $b^2 - 4ac = 0$. (d) $b^2 - 4ac = 1$.
3. Which of the following statement is true ?
   (a) $0 \in \{\ \}$. (b) $0 \subset \{\ \}$. (c) $0 \in \{0\}$. (d) $0 \subset \{0\}$.
4. Which of the following is true for unimodal asymmetrical sets of data ?
   (a) Mean — Mode = 3 (Mean — Median). (b) Mean — Median = 3 (Mean — Mode).
   (c) Mean — Median = 2 (Mean — Mode). (d) None of these.

Fill in the blanks :

5. If A is a matrix of order 4 × 3 and B is a matrix of order 3 × 5, then the order of the product AB is ————.
6. The common ratio of the G.P. 1, $\frac{1}{3}, \frac{1}{9}, \frac{1}{27}$..... is ————.
7. If a set A contains n elements, then power set of A contains ———— elements.
8. In a Symmetric distribution, the relation between the Mean, Median and Mode is given by ————.

Answer the following :

9. Define zero (Null) matrix.
10. Write down any two measures of central tendency.
11. What is the simple interest for Rs. 10,000 at the rate of 15% per annum for 2 Years ?
12. $A = \begin{bmatrix} 0 & -1 & 5 \\ 2 & 8 & 9 \\ 1 & 0 & 8 \end{bmatrix}$ find – 5A.

($12 \times \frac{1}{4} = 3$ weightage)

II. Short Answer Questions. Answer *all* questions :

13. Compute the product AB where $A = \begin{bmatrix} 1 \\ 2 \\ 3 \end{bmatrix}$ and $B = [2 \quad 3 \quad 4 \quad 5]$.

Turn over