

K17U 2015

Reg. No	.:
Name :	

III Semester B.B.A./B.B.A.T.T.M./B.B.A.R.T.M./B.B.M. Degree (CBCSS – Reg./Supple./Imp.) Examination, November 2017 (2014 Admn. Onwards) General Course 3A12 BBA/BBA (TTM)/BBA(RTM)/3A 11 BBM : NUMERICAL SKILLS

Time : 3 Hours

Max. Marks : 40

SECTION-A

Answer the 4 questions. Each question carries 1/2 mark.

- 1. A set contains no element is called.
- 2. If A is a matrix of order '2×3' and B is a matrix of order '3×2', then the order of AB is
- 3. One quadratic equation $ax^2 + bx + c = 0$ has equal roots if
- 4. If a, b, c are in A.P. then the A.M. between 'a & c' is.

 $(4 \times \frac{1}{2} = 2)$

SECTION - B

Answer any 4 questions. Each question carries 1 mark.

5. What is present value ?

- 6. Draw a Venndiagram for $(A \cap B)'$.
- 7. Write any one form of Demorgan's law.
- 8. Define square matrix.
- 9. Find the roots of $x^2 1 = 0$.
- 10. Find the 10th term of the A.P. 2, 7, 12, _

 $(4 \times 1 = 4)$

P.T.O.

K17U 2015

SECTION-C

Answer any 6 questions. Each question carries 3 marks.

11. If $A = \{1, 2, 3\}$, $B = \{3, 4, 5\}$, $C = \{1, 3, 5\}$. Prove that $A - (B \cup C) = (A - B) \cap (A - C)$.

12. If $A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \\ 5 & 6 \end{bmatrix}$, $B = \begin{bmatrix} -1 & -2 \\ 0 & 4 \\ 3 & 1 \end{bmatrix}$ find the matrix X such that A + B - X = 0.

13. Solve: 2x - y = 5

3x - 4y = 10 using elimination method.

- 14. Find the sum of 'n' terms of an A.P. Whose 7th term is 30 and 13th term is 54.
- 16. Find the total interest and amount at the end of 5th year for Rs. 5000 at 10% p.a., simple interest.
- 17. Find the distance between the points (3, -5) and (8, 7).
- 'A' is six times as old as 'B'. Fifteen years later 'A' will be three times old as 'B'.
 Find the ages of 'A' and 'B'. (6×3=18)

SECTION - D

Answer any two questions. Each question carries 8 marks.

19. Demand and supply curves are given by $p = 10 - 3 q^2$ and $p = 4 + q^2 + 2q$. Find the equilibrium price and quantity.

20. If A =
$$\begin{bmatrix} 1 & 3 & 3 \\ 1 & 4 & 3 \\ 1 & 3 & 4 \end{bmatrix}$$
, then find A⁻¹.

21. In a college there are 20 teachers, who teach Accountancy or statistics of these 12 teach Accountancy and 4 teach both Statistics and Accountancy. How many teach statistics ? (2×8=16)