K23U 3526

Reg. No. : .....

Name : .....

III Semester B.B.A./B.B.A. (RTM) Degree (C.B.C.S.S. – O.B.E. – Regular/ Supplementary/Improvement) Examination, November 2023
(2019 to 2022 Admissions)
GENERAL AWARENESS COURSE
3A11 BBA/BBA (RTM) : Numerical Skills

Time : 3 Hours Max. Marks : 40

SECTION – A

Answer the **six** questions. **Each** question carries **1** mark. **(6×1=6)**

1. How many Prime numbers are in between 1 and 50 ?
2. Define order of a Matrix.
3. Find C in the proportion : $\frac{36}{C} = \frac{45}{10}$.
4. The maximum number of roots for a quadratic equation is equal to
5. The 10^{th} term of the AP 5, 8, 11, 14, ... is
6. Find the distance of the point p(2, 3) from the x-axis.

SECTION – B

Answer **any six** questions. **Each** question carries **2** marks. **(6×2=12)**

7. Write any two differences between Depreciation and Amortisation.
8. Solve : $\left(2\sqrt{2}+7\sqrt{2}\right)\left(2\sqrt{2}-7\sqrt{7}\right)$.
9. What is the present value of ₹ 1 to be received after 2 years compounded annually at 10% ?
10. Find the area of triangle formed by the points A(5, 2), B(4, 7) and C(7, –4).
11. Two numbers are in the ratio 3 : 4. If the sum of the numbers is 63, find the numbers.
12. Solve : $x^2 - 15x + 56 = 0$.
13. 30 students went into a restaurant. 20 choose idli while 25 ordered for puri. How many chose both idli and puri ?
14. If A = {5, 7, 9, 11} and B = {8, 9, 10, 11}, find $A \cup B$, $A \cap B$ and A – B.

P.T.O.

SECTION – C

Answer **any four** questions. **Each** question carries **3** marks. **(4×3=12)**

15. If $A = \begin{bmatrix} 6 & 2 & 4 \\ 1 & 2 & 2 \end{bmatrix}$ and $B = \begin{bmatrix} 3 & 2 \\ 2 & 4 \\ 4 & 5 \end{bmatrix}$. Find AB.

16. Find the sum of a given Geometric series up to 6^{th} term 4, 12, 36, ...

17. A man performs $\frac{1}{4}$ of his total journey by car, $\frac{2}{3}$ by bus and the remaining 40 km by train. Find his total journey.

18. Find the present value of ₹ 2,000 due in 3 years at 8% per annum compounded :
    a) Yearly
    b) Half yearly

19. Find two numbers whose sum is 74 and difference is 10.

20. What is the distance between two points A and B whose coordinators are (3, 2) and (9, 7) respectively ?

SECTION – D

Answer **any two** questions. **Each** question carries **5** marks. **(2×5=10)**

21. Find the inverse of Matrix A.

$$A = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 2 & 9 \end{bmatrix}.$$

22. In an AP of 50 terms, the sum of first 10 terms is 210 and sum of its last 15 terms is 2565. Find the AP.

23. Using the quadratic formula, find the roots of the quadratic equation $x^2 - 2x - 24 = 0$.

24. Mr. A decides to deposit ₹ 5,000 at the end of every year in a bank which pays compound interest at the rate 5% per annum. What will be his accumulation at the end of 15 years ?
