

Reg. No. :

Name :

III Semester BBA/BBA (RTM)/BBA-AAM/BBA-HA Degree (C.B.C.S.S.-O.B.E.-
Regular/Supplementary/Improvement) Examination, November 2024
(2019 to 2023 Admissions)
GENERAL AWARENESS COURSE
3A11BBA/BBA(RTM)/AAM : Numerical Skills

Time : 3 Hours

Max. Marks : 40

PART - A

- I. Answer **all** questions. **Each** question carries **1** mark.
- 1) If A is a 2×3 matrix, and B is a 3×5 matrix, what is the order of AB ?
 - 2) How many prime numbers are there between 20 and 50 ?
 - 3) What is the value of the discriminant of the quadratic equation $x^2 + 5x + 4$?
 - 4) Find the 15th term of the arithmetic progression 3, 6, 9, 12, ...
 - 5) Find D in the proportion $\frac{50}{D} = \frac{20}{32}$.
 - 6) What is the distance between the point (6, 8) and the x - axis ? (6×1=6)

PART - B

- II. Answer **any 6** questions. **Each** question carries **2** marks.
- 7) Solve $(8\sqrt{2} + 2\sqrt{3})(8\sqrt{2} - 2\sqrt{3})$.
 - 8) Find the final amount on a sum of ₹3,000 compounded annually at 7% for two years.
 - 9) Solve $x^2 - 9x + 14 = 0$.
 - 10) There are 40 people in a room. 32 of them speak English and 28 speak French. All of them know at least one language. How many of them speak both English and French ?
 - 11) Find the area of the triangle formed by the points A(3, 6), B(5, 9), C(11, 7).
 - 12) Two numbers are in the ratio 5 : 6. If their product is 270, find the numbers.
 - 13) Write down the equation for the nth term of a geometric progression.
 - 14) If $A = \{2, 5, 6, 7\}$ and $B = \{5, 6, 7, 8, 9\}$, find $A \cap B$. (6×2=12)

P.T.O.

PART - C

- III. Answer **any 4** questions. **Each** question carries **3** marks.
- 15) Find the sum of the first 10 terms of the geometric series 5, 10, 20, 40, ...
 - 16) If $A = \begin{bmatrix} 8 & 4 & 1 \\ 3 & 2 & 7 \end{bmatrix}$ and $B = \begin{bmatrix} 5 & 4 \\ 3 & 2 \\ 7 & 9 \end{bmatrix}$, find AB.
 - 17) The sum of two numbers is 40 and their difference is 16. Find the numbers.
 - 18) Find the present value of ₹ 2,000 due in 4 years at 5% per annum compounded annually.
 - 19) A man performs $\frac{1}{4}$ of his journey by bus, $\frac{1}{5}$ by car and the remaining 50 km by train. Find the total distance travelled.
 - 20) Find the distance between the two points A(10, 6) and B(2, 0). (4×3=12)

PART - D

- IV. Answer **any 2** questions. **Each** question carries **5** marks.

- 21) Find the inverse of the matrix $\begin{bmatrix} 3 & 1 & 5 \\ 4 & 8 & 7 \\ 5 & 3 & 1 \end{bmatrix}$.
- 22) Using the quadratic formula, find the roots of the equation $x^2 - 11x + 30 = 0$.
- 23) In an A. P. of 40 terms the sum of the first 10 terms is 165 and the sum of the last 20 terms is 1830. Find the arithmetic progression.
- 24) A man deposits a sum of ₹ 6,000 for 5 years for an interest of 10% per annum compounded annually. How much extra money would he make had he compounded the same sum half yearly for the same period of time and for the same rate of interest ? (2×5=10)