

DEPARTMENT OF BCA

SUBJECT: Fundamental of Mathematics

**MODULE-1**

**SUBJECT CODE: 20BCA1C03 SEMESTER: I**

Answer the following questions:

1. Given A = [6 2 3 ; 0 1 2 ; 0 0 6] then [A] is a \_\_\_\_\_\_\_\_ matrix.
2. In linear equations, the finite set and infinite set are classified as its
3. Equations having common solutions are called\_\_\_\_\_\_\_\_\_\_.
4. Two matrix A and B are equal if
5. [a b c] is a \_\_\_\_\_\_\_.
6. Given system of linear equations x-4y+5z = -1, 2x-y+3z = 1 and 3x+2y+z = 3.
7. Non homogeneous system of linear equation Ax=B is consistent iff \_\_\_\_\_\_\_\_.
8. The rank of a null matrix is\_\_\_\_\_\_\_.
9. In a given system of equation AX=B, if row of A is not equal to row of (A:B) then the system of equation is \_\_\_\_\_\_\_\_.
10. If A is square matrix such that A2 = A, then (1+A)3-7A is equal to \_\_\_\_\_\_\_\_.
11. For any two matrices A and B in general we have\_\_\_\_\_\_\_\_.
12. Rank of a matrix is known as \_\_\_\_\_\_\_.
13. A number of non zero rows in an echelon form is called\_\_\_\_\_\_\_.
14. Idea of matrices was introduced by Arthur Caylet in \_\_\_\_\_\_\_\_\_\_.
15. If A(BC) = (AB)C, then with respect to multiplication this law is called \_\_\_\_\_\_\_\_.
16. In real numbers, additive identity is
17. If two matrices A and B have the same size and same rank, then
18. The system AX=0 in n-unknowns has non-trivial solution if-
19. We can subtract two matrices A and B if their
20. The law which does not hold in multiplication of matrices is known as
21. A pair of equations to determine the value of 2 variables is called
22. A scalar is denoted by
23. If the number of rows in A matrix are equal to the number of column in B matrix, then A and B are comfortable for
24. By changing the signs of all the elements of a matrix, we obtained
25. If u + v =u + w, then:
26. A system of linear equations is said to be homogeneous if it can be written in the form:
27. Dimension of matrix with 6 columns and 4 rows is:
28. In square matrix, all elements other than elements along primary diagonal are:
29. A homogeneous linear system always has the trivial solution, there are only two possibilities for its solutions:
30. A system of linear equations is said to be homogeneous if the constant terms are all:
31. Information in science, business and mathematics is often organized into rows and columns to form rectangular arrays called:
32. A linear transformation y=Ax is said to be orthogonal if A is
33. If A is an Orthogonal matrix then A-1 is equal to
34. If AT=A-1 then A is,
35. The system of linear equtions 4x+2y=7 , 2x+y=6 has