**SECTION III-MATHEMATICS**

**1.INVERSE OF MATRIX:**

**CODE:**

m1=matrix(c(1,0,-1,3,1,0,-1,2,8),nrow=3,ncol=3);

print(m1)

inverse=solve(m1);

print(inverse)

**OUTPUT:**

|  |
| --- |
| > m1=matrix(c(1,0,-1,3,1,0,-1,2,8),nrow=3,ncol=3);  > print(m1)  [,1] [,2] [,3]  [1,] 1 3 -1  [2,] 0 1 2  [3,] -1 0 8  > inverse=solve(m1);  > print(inverse)  [,1] [,2] [,3]  [1,] 8 -24 7  [2,] -2 7 -2  [3,] 1 -3 1 |
|  |
| |  | | --- | | > | |

2)SOLVE THE SYSTEM OF LINEAR EQUATIONS

CODE:

a <- rbind(c(-1, -5, 3),

c(-2, -7, 0),

c(-1, 4, 1))

b <- c(4, 5, 3)

solve(a, b)

OUTPUT

a <- rbind(c(-1, -5, 3),

+ c(-2, -7, 0),

+ c(-1, 4, 1))

> b <- c(4, 5, 3)

> solve(a, b)

[1] -2.5 0.0 0.5