Complete

Mark 6.00 out of 6.00

Test the consistency for the following equation and if possible solve them

$$x+y+2z=0$$

$$x + 2y + 3z = 0$$

$$x + 3y + 4z = 0$$

$$3x + 4y + 7z = 0$$

Rank of matrix 
$$A = 2$$

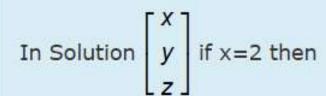
Is System of equation is consistence?

O No

Yes

The correct answer is: Yes

System of equation have solution | Infinitely many Solutions >



$$z = -2$$

Complete

Mark 4.00 out of 4.00

If the following system has a Non-trivial solution,

$$px+qy+rz=0$$

$$qx+ry+pz=0$$

$$rx + py + qz = 0$$

then which of the following option is TRUE?

Select one:

$$p+q-r=0$$
 or  $p=-q=r$ 

$$p-q+r=0$$
 or  $p=q=-r$ 

$$p+q+r=0$$
 or  $p=q=r$ 

$$p-q+r=0$$
 or  $p=-q=-r$ 

The correct answer is:

$$p+q+r=0$$
 or  $p=q=r$ 

Complete

Mark 4.00 out of 4.00

The system of equations

$$x+2y+z=0$$

$$x-z=0$$

$$x+y=0$$

## Select one:

- a trivial solution only
- no solution
- non- trivial unique solution
- (1,2,3) is the solution

The correct answer is: non-trivial unique solution

Complete

Mark 5.00 out of 5.00

Mark Your attendance.

Select one:

- a. Present
- b. Absent

The correct answers are: Present, Absent

Complete

Mark 6.00 out of 6.00

$$x_1 - 3x_2 - 8x_3 = -10$$

Solve  $3x_1 + x_2 - 4x_3 = 0$ 

$$2x_1 + 5x_2 + 6x_3 = 13$$

After converting this system into AX = b form,

Rank of A is 2

Rank of [A|b] is 2

Hence system will have

Unique solution

No solution

Infinite solutions

The correct answer is: Infinite solutions

Which of the following is most correct solution of this system

- (A)  $x_1 = -1 2t$ ,  $x_2 = 3 + 2t$ ,  $x_3 = t$  where t is a parameter.
- (B)  $x_1 = -1 + 2t$ ,  $x_2 = 3 2t$ ,  $x_3 = t$  where t is a parameter.
- (C) No solution.
- (D) Unique solution  $x_1 = 1, x_2 = 1, x_3 = 1$ .

OA

B

OD

OC

The correct answer is: B