

Name:.....  
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Number of attendance:.....

**SEMESTER II, 2022**  
**MATH: 107 QUIZ NO. 1 FULL MARKS: 10 TIME: 40 MIN.**

1. Determine the values of  $\beta$  for which the system has no solutions, exactly one solution, or infinitely many solutions.

$$\begin{aligned}x + y + \beta z &= 1 \\ -x - 2y &= -1 \\ \beta x + 8z &= 2.\end{aligned}$$

Answer:.....  
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2. Solve the system by inverting the coefficient matrix.

$$\begin{aligned}x_1 - x_2 - x_3 &= 0 \\ 2x_1 + x_2 + x_3 &= 3 \\ x_1 + 2x_2 + x_3 &= 0.\end{aligned}$$

Answer:.....  
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