THE UNIVERSITY OF TEXAS AT SAN ANTONIO

EE 5143

LINEAR SYSTEMS AND CONTROL

QUIZ # 8

Ahmad F. Taha

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Name:

Is the following system controllable or not? Justify your answer. Also, define what it means for an LTI CT system to be controllable.

$$\dot{x}(t) = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 2 & 0 \\ 0 & 2 & 4 \end{bmatrix} x(t) + \begin{bmatrix} 1 \\ 2 \\ 3 \end{bmatrix} u(t).$$

Your Solution: