01

Workshop5

Date No

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01

(i)

$$2x_1 - x_2 = 3$$
$$4x_1 + 3x_2 - x_3 = 1$$
$$3x_2 + x_3 = 0$$

$$\left[\begin{array}{ccc|c} 2 & -1 & 0 & 3 \\ 4 & 3 & -1 & 1 \\ 3 & 0 & 1 & 0 \end{array}\right] //$$

(ii)

$$x_1 + 2x_2 + x_4 + 2 = 0$$
$$x_1 + 2x_2 + x_4 = -2$$
$$x_2 - 3x_3 + x_5 = -1$$
$$4x_3 - 2x_2 + x_1 + 3x_5 = 0$$

$$\left[\begin{array}{ccccc|c} 1 & 2 & 0 & 1 & 0 & -2 \\ 0 & 1 & -3 & 0 & 1 & -1 \\ 1 & -2 & 4 & 0 & 3 & 0 \end{array}\right] //$$

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02

(i) Yes it is echelon form ~~has~~ as below all leading numbers in a row it is zero.

(ii) No it is not echelon form as the numbers below all leading are not zero.