

$$(4) \rightarrow \begin{bmatrix} 4 & 3 & 2 \\ 8 & 6 & 4 \\ 5 & 4 & 3 \\ 8 & 7 & 6 \end{bmatrix}$$

\rightarrow Dim.ⁿ of largest set of L.I. rows will be equal to Dim.ⁿ of row space. & we know that Dim.ⁿ of row space is not affected by applying elementary row op.ⁿ. So,

$$\begin{array}{l} R_2 \rightarrow R_2 - 2R_1 \\ R_3 \rightarrow R_3 - R_1 \\ R_4 \rightarrow R_4 - 2R_1 \end{array}$$

$$\begin{bmatrix} 4 & 3 & 2 \\ 0 & 0 & 0 \\ 1 & 1 & 1 \\ 0 & 1 & 2 \end{bmatrix}$$

$$R_1 \rightarrow R_1 - 4R_3$$

$$\begin{bmatrix} 0 & -1 & -2 \\ 0 & 0 & 0 \\ 1 & 1 & 1 \\ 0 & 1 & 2 \end{bmatrix} \xrightarrow{R_1 \rightarrow R_1 + R_4} \begin{bmatrix} 0 & 0 & 0 \\ 0 & 0 & 0 \\ 1 & 1 & 1 \\ 0 & 1 & 2 \end{bmatrix}$$

Note \rightarrow from here we can say,

that row ③ & row ④ will be L.I. to each other. Although there can be multiple answer comb.ⁿ, But dim.ⁿ of largest set of L.I. rows will be 2.

So, largest set of linearly independent rows \Rightarrow

$$\{(5, 4, 3), (8, 7, 6)\}$$