Found Errors in Solution? >>

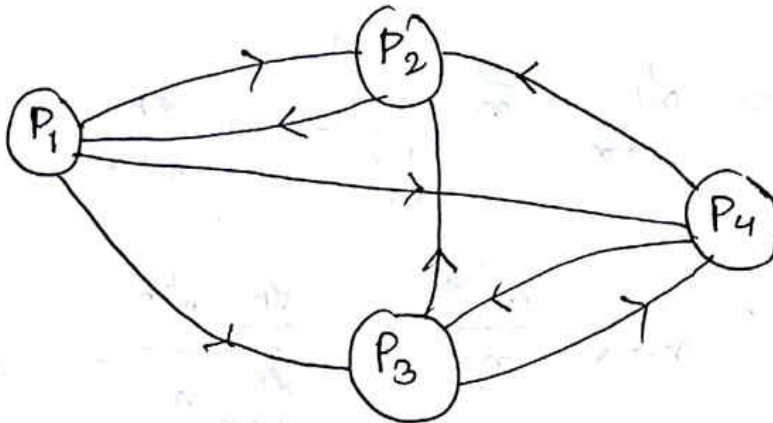**Answer**

$$M = \begin{bmatrix} 0 & 1 & 1 & 1 \\ 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 1 \\ 0 & 1 & 1 & 0 \end{bmatrix}$$

$$M^2 = \begin{bmatrix} 0 & 1 & 1 & 1 \\ 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 1 \\ 0 & 1 & 1 & 0 \end{bmatrix} \begin{bmatrix} 0 & 1 & 1 & 1 \\ 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 1 \\ 0 & 1 & 1 & 0 \end{bmatrix} = \begin{bmatrix} 1 & 2 & 1 & 1 \\ 0 & 1 & 1 & 1 \\ 1 & 1 & 1 & 0 \\ 1 & 1 & 0 & 1 \end{bmatrix}$$

$$M^3 = \begin{bmatrix} 2 & 3 & 2 & 3 \\ 1 & 2 & 1 & 1 \\ 1 & 2 & 1 & 2 \\ 1 & 2 & 2 & 1 \end{bmatrix}$$

P_1 to P_2 M_{12}

1-step connection is   1 $P_1 \rightarrow P_2$

P_1 to P_2 M^2_{12}

2-step connection is   2 $P_1 \rightarrow P_4 \rightarrow P_2$

P_1 to P_2 M_{12}^3

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3 - step connection is 3

$P_1 \rightarrow P_3 \rightarrow P_2$

$P_1 \rightarrow P_3 \rightarrow P_4 \rightarrow P_2$
$P_1 \rightarrow P_4 \rightarrow P_3 \rightarrow P_2$
$P_1 \rightarrow P_2 \rightarrow P_1 \rightarrow P_2$

P_1 to P_4

1- step (M_{14}) is 1

$P_1 \rightarrow P_4$

2- step (M_{14}^2) is 1.

$P_1 \rightarrow P_3 \rightarrow P_4$

3- step (M_{14}^3) is 2

$P_1 \rightarrow P_2 \rightarrow P_1 \rightarrow P_4$
$P_1 \rightarrow P_4 \rightarrow P_3 \rightarrow P_4$

Likes: 0   **Dislikes: 0**