

④ Q | E F

$$L[E] = \{B, G\}$$

$$T = \{(A, B), (A, C), (A, D), (B, E), (D, F)\}$$

⑤ Q | F G

$$L[F] = \{D, G\}$$

$$T = \{(A, B), (A, C), (A, D), (B, E), (D, F), (E, G)\}$$

Breadth First Search:

① Q |

$$\text{new} = \{A, B, C, D, E, F, G\}$$

$$\text{old} = \{\}$$

$$T = \{\}$$

② Q | A

$$L[A] = \{B, C, D\}$$

$$\text{new} = \{B, C, D, E, F, G\}$$

$$\text{old} = \{A\}$$

$$T = \{\}$$

$$T = \{(A, B), (A, C), (A, D), (B, E), (D, F), (E, G)\}$$

③ Q | B | C | D

$$L[B] = \{A, E\}, \text{new} = \{E, F, G\}$$

$$\text{old} = \{A, B, C, D\}$$

$$T = \{(A, B), (A, C), (A, D)\}$$

④ Q | C | D | E

$$L[C] = \{A, D\}, \text{new} = \{F, G\}$$

$$\text{old} = \{A, B, C, D, E\}$$

$$T = \{(A, B), (A, C), (A, D), (B, E)\}$$

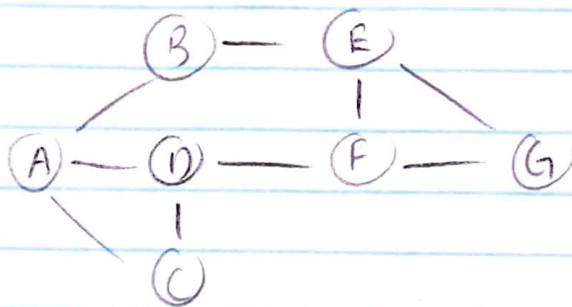
Q | D | E

$$L[D] = \{A, C, F\}, \text{new} = \{F, G\}$$

$$\text{old} = \{A, B, C, D, E\}$$

$$T = \{(A, B), (A, C), (A, D), (B, E)\}$$

# DEPTH FIRST SEARCH



$$\textcircled{1} \quad \boxed{A} \quad L[A] = \{B, D, C\}$$

$$T = \{\}$$

$$\textcircled{2} \quad \begin{array}{|c|} \hline B \\ \hline A \\ \hline \end{array} \quad L[B] = \{A, E\}$$

$$T = \{(A, B)\}$$

$$\textcircled{3} \quad \begin{array}{|c|} \hline E \\ \hline B \\ \hline A \\ \hline \end{array} \quad L[E] = \{B, F, G\}$$

$$T = \{(A, B), (B, E)\}$$

$$\textcircled{4} \quad \begin{array}{|c|} \hline G \\ \hline E \\ \hline B \\ \hline A \\ \hline \end{array} \quad L[G] = \{E, F\}$$

$$T = \{(A, B), (B, E), (E, G)\}$$

$$\textcircled{5} \quad \begin{array}{|c|} \hline E \\ \hline B \\ \hline A \\ \hline \end{array} \quad L[E] = \{B, F, G\}$$

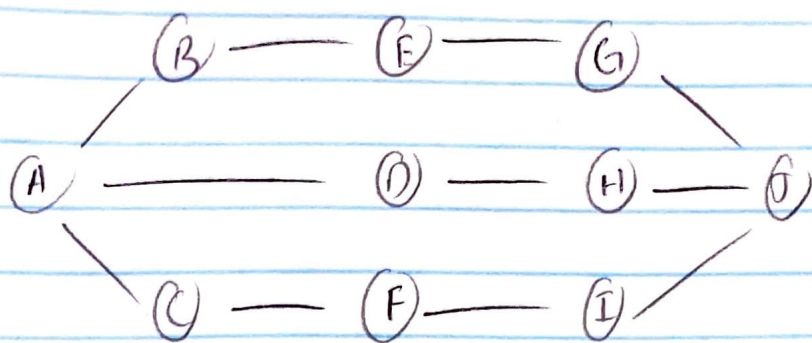
$$T = \{(A, B), (B, E), (E, G), (E, F)\}$$

$$\textcircled{6} \quad \begin{array}{|c|} \hline B \\ \hline A \\ \hline \end{array} \quad L[B] = \{A, E\}$$

$$T = \{(A, B), (B, E), (E, G), (E, F)\}$$

$$\textcircled{7} \quad \boxed{A} \quad L[A] = \{B, D, C\}$$

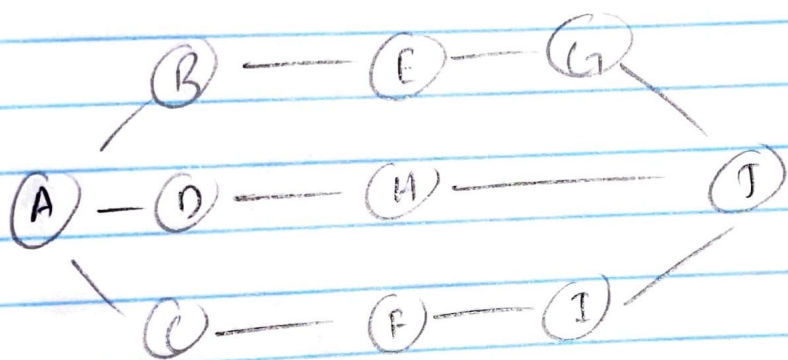
$$T = \{(A, B), (B, E), (E, G), (E, F), (A, D), (A, C)\}$$



~~A B D C E H F G I~~

Breadth First Search :

$$T = \{ (A, B), (A, D), (A, C), (B, E), (D, H), (C, F), \} \\ \{ (E, G), (H, J), (F, I) \}$$



Depth First Search :

$$T = \{ (A, B), (B, E), (E, G), (G, J), (J, H), (H, D), (D, A), \} \\ \{ (A, C), (C, F), (F, I), (I, J) \}$$