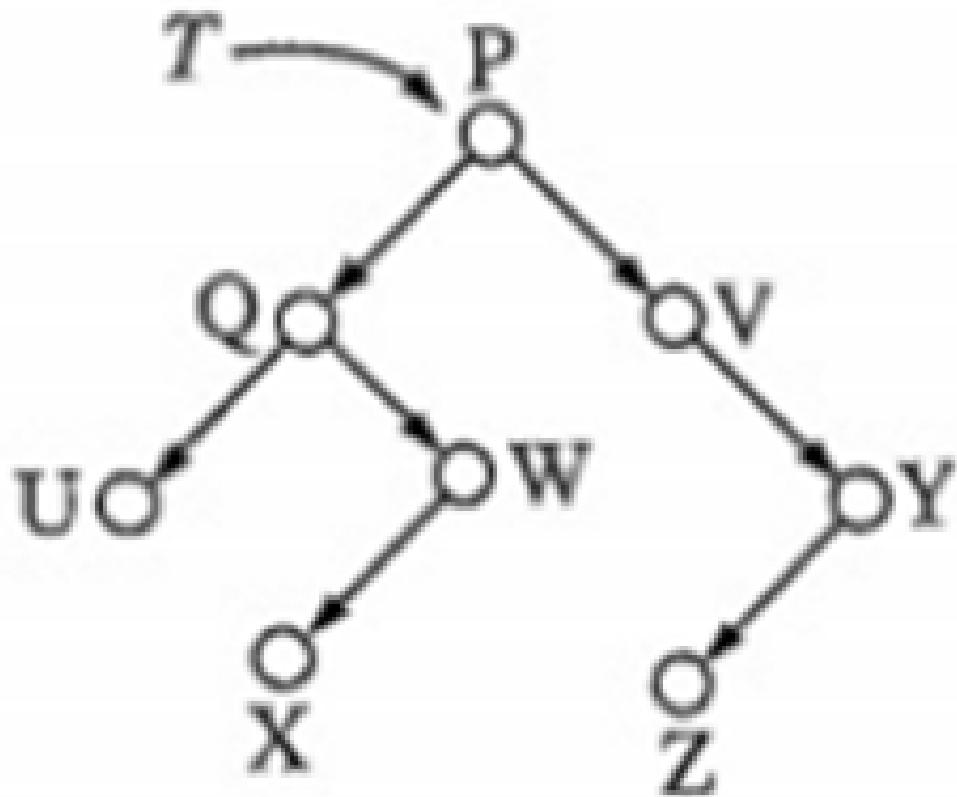|	
Started on	Tuesday, 15 March 2022, 5:23 PM
State	Finished
Completed on	Tuesday, 15 March 2022, 5:25 PM
Time taken	1 min 57 secs

Question 1

Complete

Marked out of 1.00

Consider the following binary search tree T given below: Which node contains the fourth smallest element in T?

Select one:

- ○ a. V
- ○ b. Q
- ◉ c. W
- ○ d. X

Question 2

Complete

Marked out of 1.00

While inserting the elements 71, 65, 84, 69, 67, 83 in an empty binary search tree (BST) in the sequence shown, the element in the lowest level is

Select one:

- ○ a. 65
- ◉ b. 67
- ○ c. 69
- ○ d. 83

Question 3

Complete

Marked out of 1.00

In delete operation of BST, we need inorder successor (or predecessor) of a node when the node to be deleted has both left and right child as non-empty. Which of the following is true about inorder successor needed in delete operation?

Select one:

○ **a. Inorder successor is always either a leaf node or a node with empty left child**

○ **b. Inorder Successor is always a leaf node**

○ **c. Inorder successor is always either a leaf node or a node with empty right child**

○ **d. Inorder successor may be an ancestor of the node**

Question 4

Complete

Marked out of 1.00

The following numbers are inserted into an empty binary search tree in the given order: 10, 1, 3, 5, 15, 12, 16 What is the height of the binary search tree ?
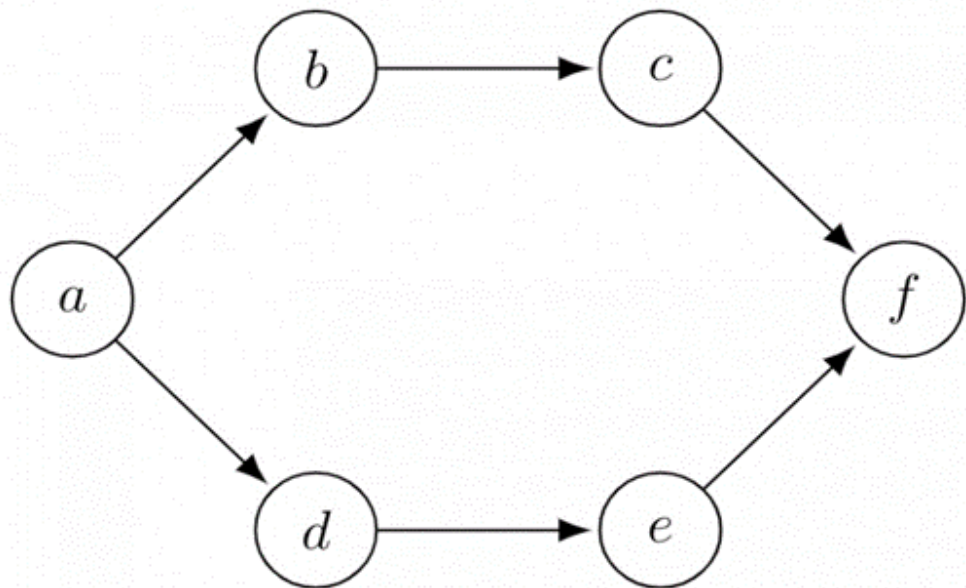
Select one:

○ **a. 6**

○ **b. 5**

◉ **c. 4**

○ **d. 3**

Consider the following directed graph:

The number of different topological orderings of the vertices of the graph is

_____.

Select one:

○ a. 12

○ b. 5

○ c. 9

◉ d. 6