Status	Finished
Started	Monday, 5 May 2025, 10:17 AM
Completed	Monday, 5 May 2025, 10:22 AM
Duration	4 mins 41 secs
Grade	**6.00** out of 10.00 (**60**%)

Question 1

Correct

Mark 1.00 out of 1.00

Greedy choice property refers to

a. a globally optimal solution can be arrived at by making a fixed number of locally optimal (greedy) choices

b. a globally optimal solution can be arrived at by making locally optimal (greedy) choices. ✓

c. a globally optimal solution can be arrived at by making only one locally optimal (greedy) choice.

d. a globally optimal solution can be arrived at by making a locally (greedy) choices.

Your answer is correct.

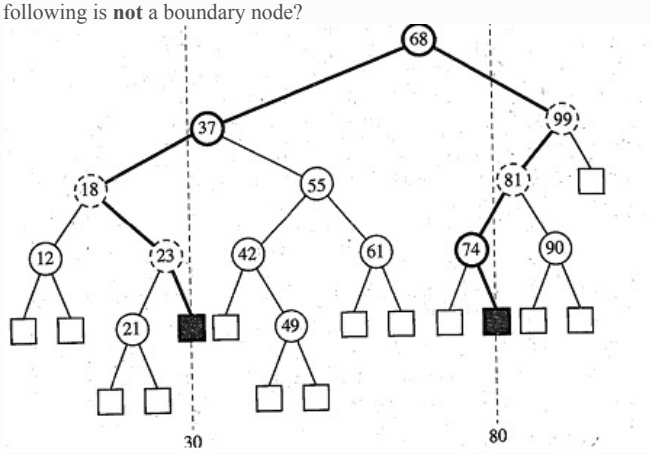
The correct answer is:
a globally optimal solution can be arrived at by making locally optimal (greedy) choices.

Question 2

Incorrect

Mark 0.00 out of 1.00

Consider the following tree structure for one-dimensional range search where a search is made with range [30, 80]. Which of the following is **not** a boundary node?



a. 49

b. 18 ⊗

c. 68

d. 74

Your answer is incorrect.

The correct answer is: 49

Question 3

Incorrect

Mark 0.00 out of 1.00

Consider a graph with n vertices and e edges. How many spanning trees are possible irrespective when all edges have same weight?

a. ${}^{v}C_{v}$

b. ${}^{e}C_{e}$

c. ${}^{e}C_{v-1}$

d. Cannot be determined ⊗

Your answer is incorrect.

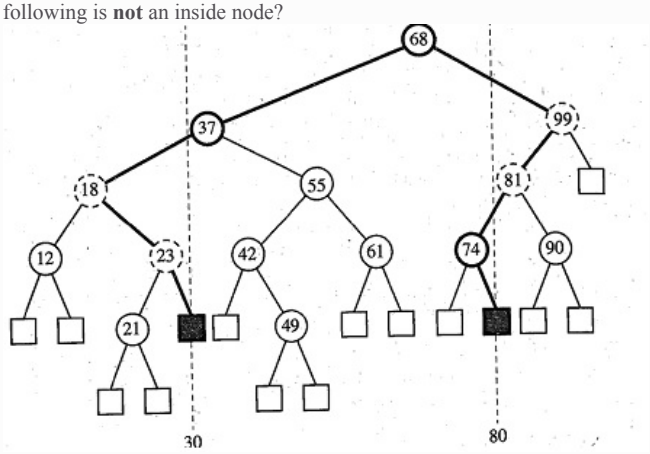
The correct answer is: ${}^{e}C_{v-1}$

Question 4

Correct

Mark 1.00 out of 1.00

Consider the following tree structure for one-dimensional range search where a search is made with range [30, 80]. Which of the following is **not** an inside node?



a. 49

b. Null

c. 55

d. 37

Your answer is correct.

The correct answer is: 37

Question 5

Incorrect

Mark 0.00 out of 1.00

Consider the problem of making change where coins have values as 30 cents, 20 cents, 5 cents and 1 cent. Do you think the greedy method can produce optimal solution?

a. YES

b. Sometime no

c. No

d. Cannot be determined.

Your answer is incorrect.

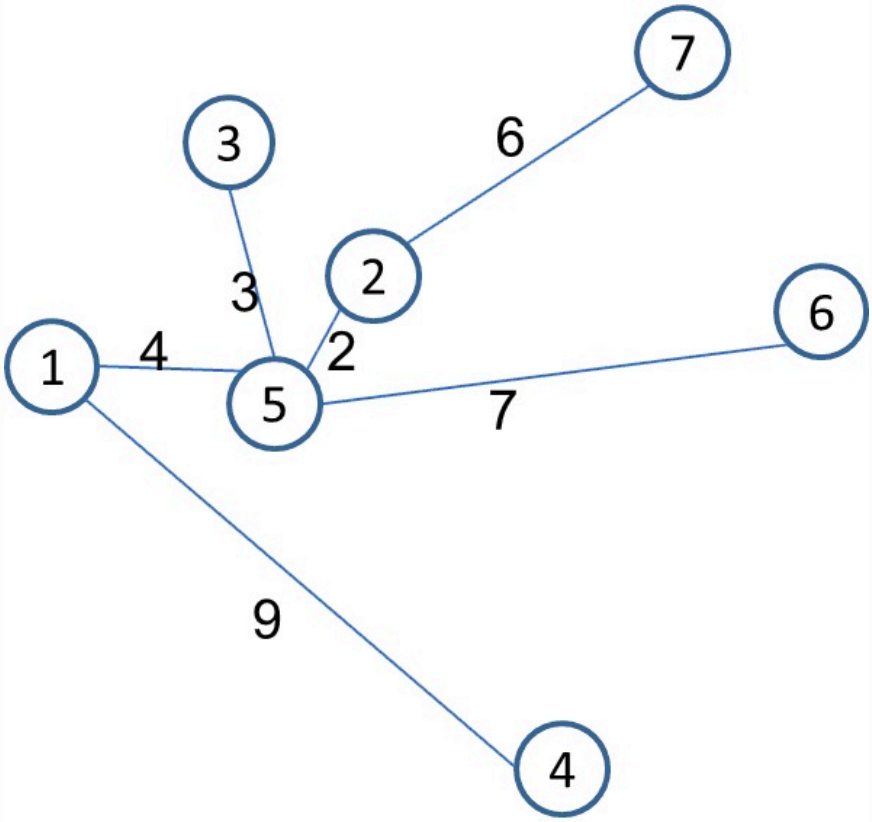
The correct answer is:
No

Question 6

Correct

Mark 1.00 out of 1.00

Assume that the following is the final minimum spanning tree resulted by using Kruskal's algorithm. Which pair of nodes have been chosen at first?



a. 5 and 3

b. 2 and 5

c. 1 and 4

d. 5 and 1

Your answer is correct.

The correct answer is: 2 and 5

Question 7

Correct

Mark 1.00 out of 1.00

In problem of "making change", the aim is to

a. Maximize the number of coins.
b. None of these.
c. Minimize the time complexity of the algorithm.
d. Minimize the number of coins. ✓

Your answer is correct.

The correct answer is:
Minimize the number of coins.

Question 8

Correct

Mark 1.00 out of 1.00

Optimal Substructure property in greedy method refers to

a. None of these.
b. A non-optimal solution to the problem contains non-optimal solutions to the sub problems.
c. An optimal solution to the sub-problems indicates an optimal solution to the problem.
d. An optimal solution to the problem contains optimal solutions to the sub problems. ✓

Your answer is correct.

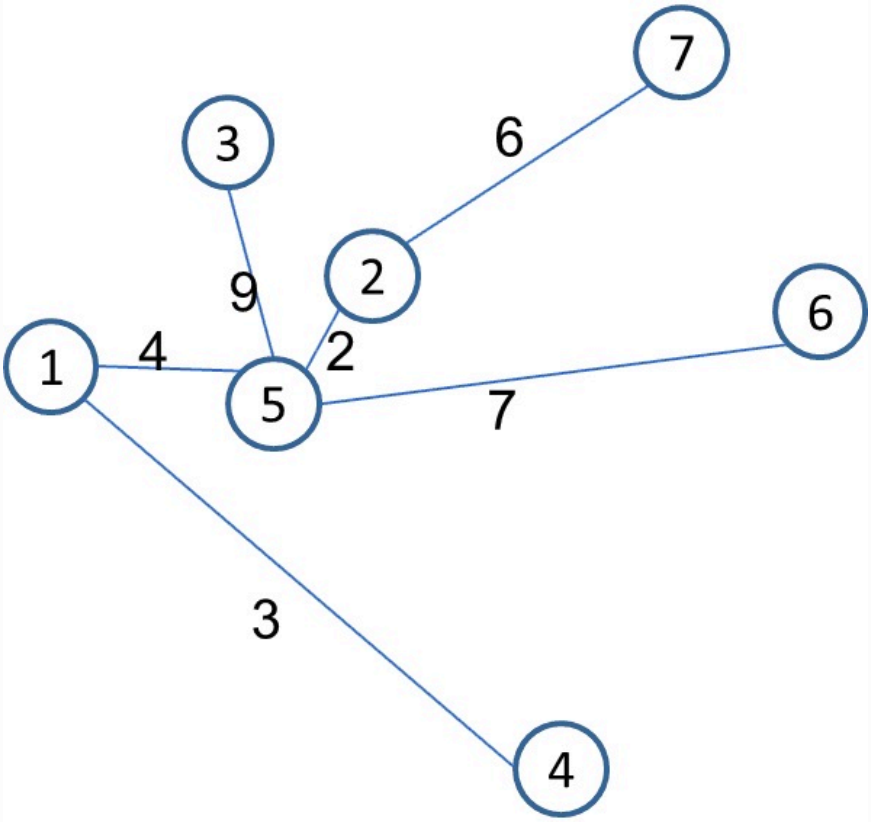
The correct answer is:
An optimal solution to the problem contains optimal solutions to the sub problems.

Question 9

Correct

Mark 1.00 out of 1.00

Consider that the following is the minimum spanning tree resulted using Kruskal's algorithms. Which pair of nodes are added second to the tree?



a. Cannot be determined

b. 1 and 5

c. 1 and 4

d. 2 and 5

Your answer is correct.

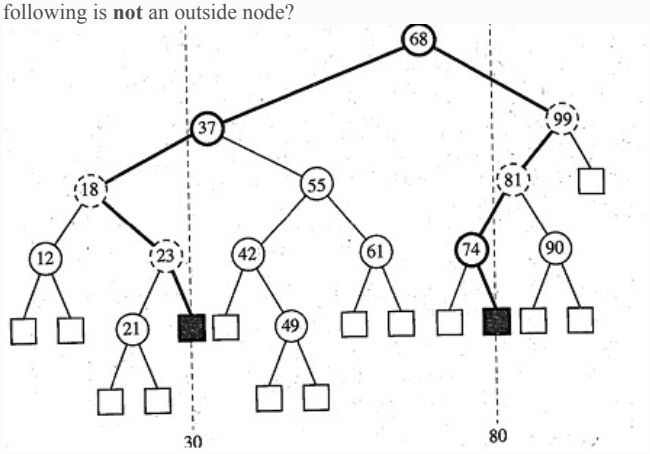
The correct answer is:
1 and 4

Question 10

Incorrect

Mark 0.00 out of 1.00

Consider the following tree structure for one-dimensional range search where a search is made with range [30, 80]. Which of the following is **not** an outside node?



a. 12

b. 90

c. 18

d. 21 ⊗

Your answer is incorrect.

The correct answer is: 18

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Contact for support : support@wilp.bits-pilani.ac.in

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