

Code No: 54016

Set No. 1

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

II B.Tech. II Sem., I Mid-Term Examinations, Jan/Feb- 2011

DESIGN AND ANALYSIS OF ALGORITHMS

Objective Exam

Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I Choose the correct alternative:

- Average case of quick sort is _____ []
a) $O(n^2)$ b) $O(n \log n)$ c) $O(n)$ d) $O(\log n)$
- The edges which are present in the graph but not present in spanning tree are called []
a) tree edges b) graph edges c) back edges d) weighted edge
- The Problem of Job sequencing with dead lines comes in the class of []
a) Greedy method b) Divide and conquer c) Dynamic programming d) Branch and bound
- In a B-Tree, if the minimum degree is 't', then We say that a node is *full* if it contains exactly _____ keys []
A)t B)t-1 C)2t D) $2t - 1$
- _____ is the maximum no. of steps that can be executed for a given parameter []
a. Best Case b. Worst c. Average case d. None
- The number of times a statement is executed is usually referred as []
a. Complexity b. Frequency Count c. Both Complexity & Frequency Count d. None
- Each path through the tree represents a _____ in the binary search. []
a) Sequence of comparisons b) Elements Comparisons c) Sequence of elements d) Comparisons
- The time required by algorithm Prims is _____. []
a) $O(n)$ b) $\Theta(n)$ c) $\Theta(n^2)$ d) $O(n^2)$
- Kruskal's algorithm is used to construct _____. []
a) Binary tree b) Binary Search tree c) Minimum spanning tree d) None
- In time complexity for strassen's matrix multiplication is _____. []
a) 3 b) 1 c) 2 d) none

Cont.....2

Code No: 54016

:2:

Set No. 1

II Fill in the blanks:

11. A tree which includes all vertices in a graph 'G' is called_____.
12. _____ sorting has worst case time complexity $O(n^2)$
13. The time complexity for general matrix multiplication is _____
14. _____ is the time complexity of quick sort in best case
15. A _____ is the expression of an algorithm in a programming language.
16. The operation Find(i) determines the _____ of the tree containing i.
17. _____ algorithms do not always yield optimal solutions
18. The _____ of an algorithm is the amount of memory it needs to run to completion.
19. An optimal code for a file is always represented by a_____, in which every non leaf node has two children
20. Any connected graph with n vertices must have at least _____ edges.

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Set No. 2

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II B.Tech. II Sem., I Mid-Term Examinations, Jan/Feb- 2011

DESIGN AND ANALYSIS OF ALGORITHMS

Objective Exam

Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I Choose the correct alternative:

1. In a B-Tree, if the minimum degree is 't', then We say that a node is *full* if it contains exactly _____ keys []
A)t B)t-1 C)2t D)2t - 1
2. _____ is the maximum no. of steps that can be executed for a given parameter []
a. Best Case b. Worst c. Average case d. None
3. The number of times a statement is executed is usually referred as []
a. Complexity b. Frequency Count c. Both Complexity & Frequency Count d. None
4. Each path through the tree represents a _____ in the binary search. []
a) Sequence of comparisons b) Elements Comparisons c) Sequence of elements d) Comparisons
5. The time required by algorithm Prims is _____. []
a) O (n) b) Θ (n) c) Θ (n²) D) O (n²)
6. Kruskal's algorithm is used to construct _____. []
a) Binary tree b) Binary Search tree c) Minimum spanning tree d) None
7. In time complexity for strassen's matrix multiplication is _____. []
a) 3 b) 1 c) 2 d) none
8. Average case of quick sort is _____. []
a) O(n) b) O(n log n) c) O (n) d) O (log n)
9. The edges which are present in the graph but not present in spanning tree are called []
a) tree edges b) graph edges c) back edges d) weighted edge
10. The Problem of Job sequencing with dead lines comes in the class of []
a) Greedy method b) Divide and conquer c) Dynamic programming d) Branch and bound

Cont.....2

Code No: 54016

:2:

Set No. 2

II Fill in the blanks:

11. _____ is the time complexity of quick sort in best case
12. A _____ is the expression of an algorithm in a programming language.
13. The operation Find(i) determines the _____ of the tree containing i.
14. _____ algorithms do not always yield optimal solutions
15. The _____ of an algorithm is the amount of memory it needs to run to completion.
16. An optimal code for a file is always represented by a _____, in which every non leaf node has two children
17. Any connected graph with n vertices must have at least _____ edges.
18. A tree which includes all vertices in a graph 'G' is called _____.
19. _____ sorting has worst case time complexity $O(n^2)$
20. The time complexity for general matrix multiplication is _____

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Set No. 3

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

II B.Tech. II Sem., I Mid-Term Examinations, Jan/Feb- 2011

DESIGN AND ANALYSIS OF ALGORITHMS

Objective Exam

Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I Choose the correct alternative:

- The number of times a statement is executed is usually referred as _____ []
a. Complexity b. Frequency Count c. Both Complexity & Frequency Count d. None
- Each path through the tree represents a _____ in the binary search. []
a) Sequence of comparisons b) Elements Comparisons c) Sequence of elements d) Comparisons
- The time required by algorithm Prim's is _____. []
a) $O(n)$ b) $\Theta(n)$ c) $\Theta(n^2)$ d) $O(n^2)$
- Kruskal's algorithm is used to construct _____. []
a) Binary tree b) Binary Search tree c) Minimum spanning tree d) None
- In time complexity for strassen's matrix multiplication is _____. []
a) 3 b) 1 c) 2 d) none
- Average case of quick sort is _____. []
a) $O(n^2)$ b) $O(n \log n)$ c) $O(n)$ d) $O(\log n)$
- The edges which are present in the graph but not present in spanning tree are called []
a) tree edges b) graph edges c) back edges d) weighted edge
- The Problem of Job sequencing with dead lines comes in the class of []
a) Greedy method b) Divide and conquer c) Dynamic programming d) Branch and bound
- In a B-Tree, if the minimum degree is 't', then We say that a node is **full** if it contains exactly _____ keys []
A)t B)t-1 C)2t D)2t - 1
- _____ is the maximum no. of steps that can be executed for a given parameter []
a. Best Case b. Worst c. Average case d. None

Cont.....2

Code No: 54016

:2:

Set No. 3

II Fill in the blanks:

11. The operation Find(i) determines the _____ of the tree containing i.
12. _____ algorithms do not always yield optimal solutions
13. The _____ of an algorithm is the amount of memory it needs to run to completion.
14. An optimal code for a file is always represented by a _____, in which every non leaf node has two children
15. Any connected graph with n vertices must have at least _____ edges.
16. A tree which includes all vertices in a graph 'G' is called _____.
17. _____ sorting has worst case time complexity $O(n^2)$
18. The time complexity for general matrix multiplication is _____
19. _____ is the time complexity of quick sort in best case
20. A _____ is the expression of an algorithm in a programming language.

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Code No: 54016

Set No. 4

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I Choose the correct alternative:

- The time required by algorithm Prim's is _____. []
a) $O(n)$ b) $\Theta(n)$ c) $\Theta(n^2)$ d) $O(n^2)$
- Kruskal's algorithm is used to construct _____. []
a) Binary tree b) Binary Search tree c) Minimum spanning tree d) None
- In time complexity for Strassen's matrix multiplication is _____. []
a) 3 b) 1 c) 2 d) none
- Average case of quick sort is _____. []
a) $O(n^2)$ b) $O(n \log n)$ c) $O(n)$ d) $O(\log n)$
- The edges which are present in the graph but not present in spanning tree are called _____. []
a) tree edges b) graph edges c) back edges d) weighted edge
- The Problem of Job sequencing with dead lines comes in the class of _____. []
a) Greedy method b) Divide and conquer c) Dynamic programming d) Branch and bound
- In a B-Tree, if the minimum degree is 't', then We say that a node is **full** if it contains exactly _____ keys. []
A)t B)t-1 C)2t D)2t - 1
- _____ is the maximum no. of steps that can be executed for a given parameter _____. []
a. Best Case b. Worst c. Average case d. None
- The number of times a statement is executed is usually referred as _____. []
a. Complexity b. Frequency Count c. Both Complexity & Frequency Count d. None
- Each path through the tree represents a _____ in the binary search. []
a) Sequence of comparisons b) Elements Comparisons c) Sequence of elements d) Comparisons

Cont.....2

Code No: 54016

:2:

Set No. 4

II Fill in the blanks:

11. The _____ of an algorithm is the amount of memory it needs to run to completion.
12. An optimal code for a file is always represented by a _____, in which every non leaf node has two children
13. Any connected graph with n vertices must have at least _____ edges.
14. A tree which includes all vertices in a graph 'G' is called _____.
15. _____ sorting has worst case time complexity $O(n^2)$
16. The time complexity for general matrix multiplication is _____
17. _____ is the time complexity of quick sort in best case
18. A _____ is the expression of an algorithm in a programming language.
19. The operation Find(i) determines the _____ of the tree containing i.
20. _____ algorithms do not always yield optimal solutions

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