



UNNAMALAI INSTITUTE OF TECHNOLOGY
Suba Nagar, Kovilpatti-628502
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
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Academic Year 2020-2021

Department of Computer Science and Engineering

VCSE2103 Design and Analysis of Algorithm

Assessment Test

Name :

Register No :

Year/Department :

No of Question: 20	Mark: 20	Duration: 30mins
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- 1) Which of the following data structures is best suited for implementing a recursive algorithm?
 - a) Array
 - b) Linked list
 - c) **Stack**
 - d) Queue
- 2) Which of the following algorithms is an example of a greedy algorithm?
 - a) Quick Sort
 - b) Dijkstra's shortest path algorithm
 - c) Bellman-Ford algorithm
 - d) **Kruskal's algorithm for minimum spanning tree**
- 3) Which of the following is a dynamic programming problem?
 - a) **Longest Common Subsequence**
 - b) Binary Search
 - c) Depth First Search
 - d) Breadth First Search
- 4) Which of the following sorting algorithms has a worst-case time complexity of $O(n^2)$?
 - a) Merge Sort
 - b) Heap Sort
 - c) Quick Sort
 - d) **Bubble Sort**

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- 5) Which of the following algorithms is used to find the strongly connected components in a directed graph?
- a) Kruskal's algorithm
 - b) Prim's algorithm
 - c) Floyd-Warshall algorithm
 - d) Kosaraju's algorithm**
- 6) Which of the following data structures is best suited for implementing a priority queue?
- a) Array
 - b) Linked list
 - c) Stack
 - d) Heap**
- 7) Which of the following algorithms is used to find the shortest path between two vertices in a graph?
- a) Breadth First Search
 - b) Depth First Search
 - c) Dijkstra's shortest path algorithm**
 - d) Bellman-Ford algorithm
- 8) Which of the following data structures is best suited for implementing a hash table?
- a) Array**
 - b) Linked list
 - c) Stack
 - d) Queue
- 9) Which of the following algorithms is used to find the maximum flow in a flow network?
- a) Kruskal's algorithm
 - b) Prim's algorithm
 - c) Ford-Fulkerson algorithm**
 - d) Bellman-Ford algorithm
- 10) Which of the following algorithms is used to find the minimum spanning tree of a weighted graph?
- a) Kruskal's algorithm**
 - b) Prim's algorithm
 - c) Floyd-Warshall algorithm
 - d) Bellman-Ford algorithm
- 11) Which of the following algorithms is used to find the transitive closure of a directed graph?

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- a) **Floyd-Warshall algorithm**
b) Bellman-Ford algorithm
c) Kosaraju's algorithm
d) Depth First Search
- 12) Which of the following algorithms is used to find the maximum subarray sum?
a) Merge Sort
b) Heap Sort
c) Quick Sort
d) **Kadane's algorithm**
- 13) Which of the following algorithms is used to find the articulation points in a graph?
a) Bellman-Ford algorithm
b) Floyd-Warshall algorithm
c) **Depth First Search**
d) Kruskal's algorithm
- 14) Which of the following algorithms is used to find the shortest path between all pairs of vertices in a graph?
a) Breadth First Search
b) Depth First Search
c) Dijkstra's shortest path algorithm
d) **Floyd-Warshall algorithm**
- 15) Which of the following algorithms is used to find the longest increasing subsequence in a sequence?
a) Merge Sort
b) Heap Sort
c) Quick Sort
d) **Dynamic Programming**
- 16) Which of the following algorithms is used to find the topological order of a directed acyclic graph?
a) Bellman-Ford algorithm
b) Floyd-Warshall algorithm
c) Depth First Search
d) **Kahn's algorithm**
- 17) Which of the following data structures is best suited for implementing a breadth-first search algorithm?

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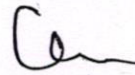
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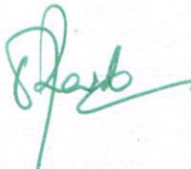
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- a) Array
 - b) Linked list
 - c) Stack
 - d) Queue**
- 18) Which of the following algorithms is used to find the maximum independent set in a graph?
- a) Dijkstra's algorithm
 - b) Bellman-Ford algorithm
 - c) Depth First Search
 - d) Bron-Kerbosch algorithm**
- 19) Which of the following algorithms is used to find the diameter of a tree?
- a) Breadth First Search
 - b) Depth First Search**
 - c) Dijkstra's shortest path algorithm
 - d) Kruskal's algorithm
- 20) Which of the following algorithms is used to find the longest path in a directed acyclic graph?
- a) Breadth First Search
 - b) Depth First Search**
 - c) Kruskal's algorithm
 - d) Dijkstra's shortest path algorithm


Course Coordinator


HoD


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VCSE2103 DESIGN AND ANALYSIS OF ALGORITHM

IV CSE

NAME : *

jegatheesh .M

REGISTER NO : *

953317104009

$$\frac{20}{20}$$

DEPARTMENT : *

Final year CSE

1) Which of the following data structures is best suited for implementing a recursive algorithm?

* 1 point

- a) Array
- b) Linked list
- c) Stack
- d) Queue


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2) Which of the following algorithms is an example of a greedy algorithm? *

- a) Quick Sort
- b) Dijkstra's shortest path algorithm
- c) Bellman-Ford algorithm
- d) Kruskal's algorithm for minimum spanning tree

3) Which of the following is a dynamic programming problem? *

1 point


- a) Longest Common Subsequence
- b) Binary Search
- c) Depth First Search
- d) Breadth First Search

4) Which of the following sorting algorithms has a worst-case time complexity of $O(n^2)$? * 1 point

- a) Merge Sort
- b) Heap Sort
- c) Quick Sort
- d) Bubble Sort



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5) Which of the following algorithms is used to find the strongly connected components in a directed graph?

- a) Kruskal's algorithm
 - b) Prim's algorithm
 - c) Floyd-Warshall algorithm
 - d) Kosaraju's algorithm
- 


6) Which of the following data structures is best suited for implementing a priority queue?

* 1 point

- a) Array
 - b) Linked list
 - c) Stack
 - d) Heap
- 

7) Which of the following algorithms is used to find the shortest path between two vertices in a graph?


* 1 point

- a) Breadth First Search
 - b) Depth First Search
 - c) Dijkstra's shortest path algorithm
 - d) Bellman-Ford algorithm
- 




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8) Which of the following data structures is best suited for implementing a hash table? 1 point

- a) Array
 - b) Linked list
 - c) Stack
 - d) Queue
- 

9) Which of the following algorithms is used to find the maximum flow in a flow network? * 1 point

- a) Kruskal's algorithm
 - b) Prim's algorithm
 - c) Ford-Fulkerson algorithm
 - d) Bellman-Ford algorithm
- 

10) Which of the following algorithms is used to find the minimum spanning tree of a weighted graph? * 1 point

- a) Kruskal's algorithm
 - b) Prim's algorithm
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 - d) Bellman-Ford algorithm
- 



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11)) Which of the following algorithms is used to find the transitive closure of a directed graph? * 1 point


- a) Floyd-Warshall algorithm
- b) Bellman-Ford algorithm
- c) Kosaraju's algorithm
- d) Depth First Search

12) Which of the following algorithms is used to find the maximum subarray sum? * 1 point


- a) Merge Sort
- b) Heap Sort
- c) Quick Sort
- d) Kadane's algorithm

13)) Which of the following algorithms is used to find the articulation points in a graph? * 1 point


- a) Bellman-Ford algorithm
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14) Which of the following algorithms is used to find the shortest path between all pairs of vertices in a graph?

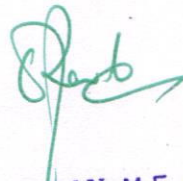
- a) Breadth First Search
 - b) Depth First Search
 - c) Dijkstra's shortest path algorithm
 - d) Floyd-Warshall algorithm
- 

15) Which of the following algorithms is used to find the longest increasing subsequence in a sequence? * 1 point

- a) Merge Sort
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16) Which of the following algorithms is used to find the topological order of a directed acyclic graph? * 1 point

- a) Bellman-Ford algorithm
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17) Which of the following data structures is best suited for implementing a breadth-first search algorithm?

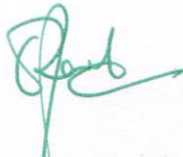
- a) Array
 - b) Linked list
 - c) Stack
 - d) Queue
- 

18) Which of the following algorithms is used to find the maximum independent set in a graph? * 1 point

- a) Dijkstra's algorithm
 - b) Bellman-Ford algorithm
 - c) Depth First Search
 - d) Bron-Kerbosch algorithm
- 

19) Which of the following algorithms is used to find the diameter of a tree? * 1 point

- a) Breadth First Search
 - b) Depth First Search
 - c) Dijkstra's shortest path algorithm
 - d) Kruskal's algorithm
- 



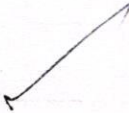
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20) Which of the following algorithms is used to find the longest path in a directed acyclic graph?

* 1 point

a) Breadth First Search

b) Depth First Search



Feedback about the course *

Good

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VCSE2103 DESIGN AND ANALYSIS OF ALGORITHM

IV CSE

NAME : *

P. Jenita

REGISTER NO : *

953317104010

$$\frac{20}{20}$$

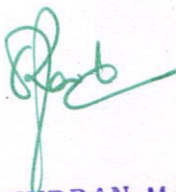
DEPARTMENT : *

Final year Cse

1) Which of the following data structures is best suited for implementing a recursive algorithm?

* 1 point

- a) Array
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- d) Queue


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2) Which of the following algorithms is an example of a greedy algorithm?

- a) Quick Sort
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- d) Kruskal's algorithm for minimum spanning tree

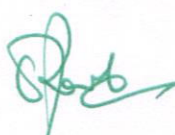
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- c) Depth First Search
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1 point

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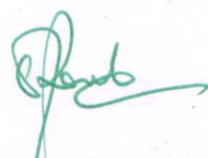
* 1 point

- a) Array
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7) Which of the following algorithms is used to find the shortest path between two vertices in a graph?

* 1 point


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- 

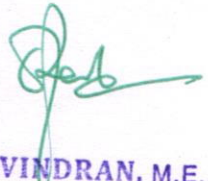
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1 point

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