Code No: NR/RR210301 | NR/RR | Set No. 2

II B.Tech I Semester Examinations,November 2010
DATA STRUCTURES THROUGH C
Common to ME, MECT, MEP, AE, MMT

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Write a C program to create a tree and traversing the same in preorder and post order [16]

2. (a) List and explain about the basic operations on a graph.
   (b) Write a C program for depth first search of a graph. [7+9]

3. (a) compare quick sort and heap sort methods.
   (b) Explain quick sort method for the elements.
   11,51,71,21,61,41,91,31 [8+8]

4. (a) Using linear search delete the number 26 from the list of numbers and give the steps.
   10,7,17,26,32,92
   (b) Write a C program to implement the same. [8+8]

5. Write a C program to print all prime numbers in a given ranges of integers. [16]

6. (a) Write an algorithm that will change the INFO field of the K th node of a linked list value given by Y.
   (b) Write an algorithm which will perform a deletion operation in a single linked list. [8+8]

7. (a) Mention and explain various types of queues and give an example for each.
   (b) Compare various types of queues. [8+8]

8. There is no reason to restrict a stack to contain only integers. Elements could have been declared as float items or char items or some other. Explain how can a stack contain objects of different types by using C . [16]

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Code No: NR/RR210301 | NR/RR | Set No. 4

II B.Tech I Semester Examinations,November 2010
DATA STRUCTURES THROUGH C
Common to ME, MECT, MEP, AE, MMT

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) List and explain about the basic operations on a graph.
   (b) Write a C program for depth first search of a graph. [7+9]
2. (a) Mention and explain various types of queues and give an example for each.
   (b) Compare various types of queues. [8+8]
3. There is no reason to restrict a stack to contain only integers. Elements could have been declared as float items or char items or some other. Explain how can a stack contain objects of different types by using C . [16]
4. (a) Write an algorithm that will change the INFO field of the K th node of a linked list value given by Y.
   (b) Write an algorithm which will perform a deletion operation in a single linked list. [8+8]
5. (a) Using linear search delete the number 26 from the list of numbers and give the steps.
   10,7,17,26,32,92
   (b) Write a C program to implement the same. [8+8]
6. Write a C program to create a tree and traversing the same in preorder and post order [16]
7. (a) compare quick sort and heap sort methods.
   (b) Explain quick sort method for the elements.
   11,51,71,21,61,41,91,31 [8+8]
8. Write a C program to print all prime numbers in a given ranges of integers. [16]

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Code No: NR/RR210301 | NR/RR | Set No. 1

II B.Tech I Semester Examinations,November 2010
DATA STRUCTURES THROUGH C
Common to ME, MECT, MEP, AE, MMT

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) compare quick sort and heap sort methods.
   (b) Explain quick sort method for the elements. 11,51,71,21,61,41,91,31 [8+8]
2. There is no reason to restrict a stack to contain only integers. Elements could have been declared as float items or char items or some other. Explain how can a stack contain objects of different types by using C . [16]
3. Write a C program to print all prime numbers in a given ranges of integers. [16]
4. Write a C program to create a tree and traversing the same in preorder and post order [16]
5. (a) Write an algorithm that will change the INFO field of the K th node of a linked list value given by Y.
   (b) Write an algorithm which will perform a deletion operation in a single linked list. [8+8]
6. (a) Using linear search delete the number 26 from the list of numbers and give the steps. 10,7,17,26,32,92
   (b) Write a C program to implement the same. [8+8]
7. (a) Mention and explain various types of queues and give an example for each.
   (b) Compare various types of queues. [8+8]
8. (a) List and explain about the basic operations on a graph.
   (b) Write a C program for depth first search of a graph. [7+9]

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Code No: NR/RR210301 | NR/RR | Set No. 3

II B.Tech I Semester Examinations,November 2010
DATA STRUCTURES THROUGH C
Common to ME, MECT, MEP, AE, MMT

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Mention and explain various types of queues and give an example for each.
   (b) Compare various types of queues. [8+8]
2. (a) List and explain about the basic operations on a graph.
   (b) Write a C program for depth first search of a graph. [7+9]
3. Write a C program to create a tree and traversing the same in preorder and post order [16]
4. (a) compare quick sort and heap sort methods.
   (b) Explain quick sort method for the elements.
   11,51,71,21,61,41,91,31 [8+8]
5. (a) Using linear search delete the number 26 from the list of numbers and give the steps.
   10,7,17,26,32,92
   (b) Write a C program to implement the same. [8+8]
6. Write a C program to print all prime numbers in a given ranges of integers. [16]
7. There is no reason to restrict a stack to contain only integers. Elements could have been declared as float items or char items or some other. Explain how can a stack contain objects of different types by using C . [16]
8. (a) Write an algorithm that will change the INFO field of the K th node of a linked list value given by Y.
   (b) Write an algorithm which will perform a deletion operation in a single linked list. [8+8]

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