Code No: 07A3EC20 **R07** **Set No. 2**

II B.Tech I Semester Examinations,November 2010
ADVANCED DATA STRUCTURES AND ALGORITHMS
Common to Information Technology, Computer Science And Systems Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Develop a routine in C++ to delete a minimum key from a binary heap.
   (b) Write a C++ implementation for merging two equally sized binomial trees. [10+6]
2. (a) What is the use of detecting end of file? Explain how to detect an end of file.
   (b) Differentiate file stream and string stream. [8+8]
3. (a) What are the advantages of new operator than malloc in C?
   (b) What are the uses of new and delete operator? [6+10]
4. (a) Differentiate between greedy method and dynamic programming?
   (b) Explain prim's algorithm with an example. [8+8]
5. Detail a C++ class with all operations that contain two stacks in which a single array is used to represent both stacks, and they should grow towards the middle of the array. [16]
6. (a) What is linear probing? Write a C++ class that shows the data members and constructors for the hash table class.
   (b) Write a C++ program to implement a search operation in a hash table. [6+10]
7. Write and explain a non recursive algorithm for in - order traversal of binary tree with n example? [16]
8. Discuss in detail about deletion from a binary search tree with one suitable example? [16]

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Code No: 07A3EC20 **R07** **Set No. 4**

II B.Tech I Semester Examinations,November 2010
ADVANCED DATA STRUCTURES AND ALGORITHMS
Common to Information Technology, Computer Science And Systems Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

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1. Detail a C++ class with all operations that contain two stacks in which a single array is used to represent both stacks, and they should grow towards the middle of the array. [16]
2. (a) What is linear probing? Write a C++ class that shows the data members and constructors for the hash table class.
   (b) Write a C++ program to implement a search operation in a hash table. [6+10]
3. Discuss in detail about deletion from a binary search tree with one suitable example? [16]
4. Write and explain a non recursive algorithm for in - order traversal of binary tree with n example? [16]
5. (a) What is the use of detecting end of file? Explain how to detect an end of file.
   (b) Differentiate file stream and string stream. [8+8]
6. (a) Develop a routine in C++ to delete a minimum key from a binary heap.
   (b) Write a C++ implementation for merging two equally sized binomial trees. [10+6]
7. (a) Differentiate between greedy method and dynamic programming?
   (b) Explain prim's algorithm with an example. [8+8]
8. (a) What are the advantages of new operator than malloc in C?
   (b) What are the uses of new and delete operator? [6+10]

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Code No: 07A3EC20 **R07** **Set No. 1**

II B.Tech I Semester Examinations,November 2010
ADVANCED DATA STRUCTURES AND ALGORITHMS
Common to Information Technology, Computer Science And Systems Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. Discuss in detail about deletion from a binary search tree with one suitable example? [16]
2. (a) What are the advantages of new operator than malloc in C?
   (b) What are the uses of new and delete operator? [6+10]
3. (a) Develop a routine in C++ to delete a minimum key from a binary heap.
   (b) Write a C++ implementation for merging two equally sized binomial trees. [10+6]
4. Detail a C++ class with all operations that contain two stacks in which a single array is used to represent both stacks, and they should grow towards the middle of the array. [16]
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   (b) Write a C++ program to implement a search operation in a hash table. [6+10]
6. (a) What is the use of detecting end of file? Explain how to detect an end of file.
   (b) Differentiate file stream and string stream. [8+8]
7. (a) Differentiate between greedy method and dynamic programming?
   (b) Explain prim's algorithm with an example. [8+8]
8. Write and explain a non recursive algorithm for in - order traversal of binary tree with n example? [16]

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Code No: 07A3EC20 **R07** **Set No. 3**

II B.Tech I Semester Examinations,November 2010
ADVANCED DATA STRUCTURES AND ALGORITHMS
Common to Information Technology, Computer Science And Systems Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

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1. Detail a C++ class with all operations that contain two stacks in which a single array is used to represent both stacks, and they should grow towards the middle of the array. [16]
2. Write and explain a non recursive algorithm for in - order traversal of binary tree with n example? [16]
3. (a) What are the advantages of new operator than malloc in C?
   (b) What are the uses of new and delete operator? [6+10]
4. Discuss in detail about deletion from a binary search tree with one suitable example? [16]
5. (a) What is linear probing? Write a C++ class that shows the data members and constructors for the hash table class.
   (b) Write a C++ program to implement a search operation in a hash table. [6+10]
6. (a) Develop a routine in C++ to delete a minimum key from a binary heap.
   (b) Write a C++ implementation for merging two equally sized binomial trees. [10+6]
7. (a) Differentiate between greedy method and dynamic programming?
   (b) Explain prim's algorithm with an example. [8+8]
8. (a) What is the use of detecting end of file? Explain how to detect an end of file.
   (b) Differentiate file stream and string stream. [8+8]

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