

Code No: 07A3EC15

**R07****Set No. 2**

II B.Tech I Semester Examinations, MAY 2011

ADVANCED DATA STRUCTURES

Common to Electronics And Computer Engineering, Computer Science And  
Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions  
All Questions carry equal marks

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1. (a) Define a Stack and propound a stack ADT.  
(b) Write a C++ program to build a stack with its basic operations. [8+8]
2. (a) Detail about extendible hashing method with an example  
(b) What are the major advantages of extendible hashing over other hashing techniques? [8+8]
3. Explain the following:
  - (a) Leftist heap
  - (b) Skew heap
  - (c) Binomial heap [16]
4. Write an algorithm to insert a key value X into a trie in which the keys are sampled left to right, one character at a time. [16]
5. (a) Compare various types of type cast operations. Detail about overloading of these operations.  
(b) How to set default values of function arguments?  
(c) When writing a catch operation we can write directly type of exception. Compare these approaches. [8+4+4]
6. What is template? Explain about function templates and class templates with suitable examples. [16]
7. (a) What is a digital search tree? Differentiate a Binary search tree and digital search tree.  
(b) Write C++ routine for insertion operation on digital search tree. [6+10]
8. Create a Red Black tree for the following list:
  - (a)  $L = \langle 10, 8, 6, 4, 2, 1, 3, 5, 7, 9 \rangle$
  - (b)  $L = \langle K, J, G, F, C, B, A, D, E, H, I, L, M \rangle$  [16]

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Code No: 07A3EC15

**R07****Set No. 4**

II B.Tech I Semester Examinations, MAY 2011

ADVANCED DATA STRUCTURES

Common to Electronics And Computer Engineering, Computer Science And Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions  
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4. Explain the following:
  - (a) Leftist heap
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5. Write an algorithm to insert a key value X into a trie in which the keys are sampled left to right, one character at a time. [16]
6. (a) Detail about extendible hashing method with an example  
 (b) What are the major advantages of extendible hashing over other hashing techniques? [8+8]
7. (a) Compare various types of type cast operations. Detail about overloading of these operations.  
 (b) How to set default values of function arguments?  
 (c) When writing a catch operation we can write directly type of exception. Compare these approaches. [8+4+4]
8. (a) What is a digital search tree? Differentiate a Binary search tree and digital search tree.  
 (b) Write C++ routine for insertion operation on digital search tree. [6+10]

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Code No: 07A3EC15

**R07****Set No. 1**

II B.Tech I Semester Examinations, MAY 2011

ADVANCED DATA STRUCTURES

Common to Electronics And Computer Engineering, Computer Science And  
Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions  
All Questions carry equal marks

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1. (a) Detail about extendible hashing method with an example  
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4. Create a Red Black tree for the following list:  
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7. Explain the following:  
(a) Leftist heap  
(b) Skew heap  
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8. Write an algorithm to insert a key value X into a trie in which the keys are sampled left to right, one character at a time. [16]

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Code No: 07A3EC15

**R07****Set No. 3**

II B.Tech I Semester Examinations, MAY 2011

ADVANCED DATA STRUCTURES

Common to Electronics And Computer Engineering, Computer Science And  
Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions  
All Questions carry equal marks

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1. Create a Red Black tree for the following list:
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  - (b)  $L = \langle K, J, G, F, C, B, A, D, E, H, I, L, M \rangle$  [16]
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7. Explain the following:
  - (a) Leftist heap
  - (b) Skew heap
  - (c) Binomial heap [16]
8. (a) Define a Stack and propound a stack ADT.  
 (b) Write a C++ program to build a stack with its basic operations. [8+8]

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