R7

Answer any FIVE questions
All questions carry equal marks
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1. (a) Explain various problem solving strategies.

   (b) compare and contrast procedure and object oriented programming language.

2. (a) Explain the concept generic programming.

   (b) Explain function and class templates in detail.

3. Write a C++ program using pointers to implement a stack with all the operations.

4. What is Hashing? Explain the different Hash table representations in detail?

5. (a) Write a procedure and C++ class to remove max element from max heap.

   (b) Write abstract data type specification and C++ abstract class for maxPriority Queue.

6. Define Binary Search tree and indexed binary search tree? Write the procedures to perform insertion, deletion and searching in a binary search tree.

7. Derive the amortized complexity of a find,, insert and delete operations performed on a splay tree with n elements.

8. Give an efficient algorithm for deleting a string from standard trie and analyze its running time.

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