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Subject Code: CS-201   Subject: Data Structures
Semester: 3rd Department: CSE
Course: B.Tech   Section: A

You have to write the time complexities and space complexities in the lab copies for all questions.

1. Stack can be built using an array. Write a program to implement stack using structure for the following function-

   (a) isEmpty()

   (b) isFull()

   (c) Push()

   (d) Pop()

   (e) Peek()

2. Write a program to convert infix expression to postfix expression.

3. Write a program to evaluate an expression using stack. For instance, 4+6*3-10/2

4. Write a program to check whether given parentheses are balanced or not.

5. Write a program to implement a queue using two stacks and implement the following functions-

   (a) isFull()

   (b) isEmpty()

   (c) enQueue()

   (d) deQueue()

6. Write a program to implement two stacks in a single array and implement the following functions-

   (a) isFull()

   (b) isEmpty()

   (c) Push()

   (d) Pop()

   (e) Peek()