

Pune Vidyarthi Griha's
COLLEGE OF ENGINEERING, NASHIK – 4
COMPUTER ENGINEERING DEPARTMENT

Subject : DSA

ASSIGNMENT NO – 04

Unit : IV

1. What is stack ? Write an ADT for stack.
2. What is recursion ? Explain use of stack for recursion.
3. Explain (algo.) evaluation of postfix expression using stack with example.
4. Write algorithm to convert infix expression to postfix expression.
5. Define Backtracking & Explain use of backtracking in 4-Queen's problem.
6. Give pseudo C/C++ code to implement the foll. operations on linked stack :
 - (i) Create
 - (ii) Push data
7. Explain the stepwise conversion using stack for the given infix expression to the postfix expression :
$$A * B + C * D.$$
8. Explain the stepwise conversion using stack for the given infix expression to the postfix expression :
$$A * (B + C) * D.$$
9. Explain process of conversion of an infix expression to postfix expression using stack :
$$A * (B - C)/E ^ F + G.$$
10. Explain the stepwise conversion using stack for the given infix expression to the postfix expression :
$$((a/(b-c+d))*(e-a)*c$$
11. Convert the following prefix into postfix
$$*+a - bc / - de + - fgh$$

***** **Best of Luck** *****