MANJARA CHARITABLE TRUST
RAJIV GANDHI INSTITUTE OF TECHNOLOGY, MUMBAI

Department of Applied Sciences & Humanities

F.E. Sem-II Academic Year – 2025-26

Question Bank for IA-1

Course Name- Data Structure (DS)

1. Define the term “Data structure”.
2. Define abstract data type(ADT)and explain with one example.
3. Differentiate between linear and non-linear data structure.
4. Explain different types of data structures with an example.
5. What is linear data structure ?explain with an example.
6. List and explain various operations performed on Stack.
7. What is stack overflow and stack underflow?
8. write a program to implement stack using Array with functions: PUSH,POP,TOP,STACK_ISFULL,STACK_ISEMPTY.
9. Convert following infix expressions into postfix form:
   1) (A+B^D)/(E-F)+G
   2) A*(B+D)/E-F*(G+H/K)
10. Give applications to the stack.
11. What is Recursion ?Explain with examples.
12. Explain infix, prefix, postfix expression with an example.
13. Evaluate following postfix expression:
    1) 5 4 6 +* 4 9 3 /+*
    2) *4 9 3 /+*
    3) 3 5 *6 2 /+