SDM COLLEGE OF ENGINEERING & TECHNOLOGY, DHARWAD

Department of Computer Science and Engineering
Internal Assessment - III

Course. Title & Code : Data Structures and Applications (22UCSC300)
Semester : III (A & B)   Date : 11-1-2024
Max. Marks :·20   Duration : 1 Hr.
Course Teachers : Prof. Sandhya S V & Prof. Dr. J C Karur

Q.No 1

Explain stepwise construction of an expression tree for the given infix expression.and show the construction of tree in the stacks.

$$a + b - c * d / e + f / g * h$$

10 Marks CO:4

Q.No 2

Explain stepwise construction of 2-3 tree for the elements from 1 to 10 of order m=3.

10 Marks CO:5

Q.No 3

a. Explain the properties of B-trees.

3 Marks CO:5

b. Define AVL tree. Illustrate the different rotations of AVL tree.

1+6=7Marks CO:5