Government Engineering College, Thrissur
SERIES TEST-I JANUARY 2021 Department of MCA
20MCA105 Advanced Data Structures

Time: 1 hr Marks: 20

PART I

1. What is meant by Balanced binary search tree? Give an example for a balanced binary search tree and an unbalanced one.   2

2. Write an algorithm/pseudocode to delete a node from a doubly linked list.   3

3. Define hashing, hash function and collision.   3

PART II

4. How do you perform amortized analysis using Accounting method .Illustrate with Multipop stack example .   6

OR

5. How set data structure can be implemented using bit string ?Also discuss various set operations.   6

6. What are the properties of a red black tree? With a simple example explain how insertion is done in red black trees.   6

OR

7. a.Write an algorithm/pseudo code to insert an element in a circular queue using array.   3
   b. What is a Binary tree? Give an example. Give its array representation.   3