



# THE AMERICAN COLLEGE, MADURAI

(An Autonomous Institution Affiliated to Madurai Kamaraj University)

Re-accredited (2<sup>nd</sup> Cycle) by NAAC with Grade "A", CGPA – 3.46 on a 4-point scale

## Backlog Arrear Examination, March 2021

**Course code: BCA 2531**

**Duration : 3hrs**

**Course title: DS Using C++**

**Max. Mark: 75**

**Answer any five questions ( 5 \* 15 = 75 marks)**

1. Discuss in detail about various Memory allocation function. Write a program in C++ to find the addition of two matrix using array.
2. Write a algorithm to convert the arithmetic expression from infix to postfix notation and explain with example.
3. Analyze the various types of Queue with suitable example.
4. Write the advantage and dis advantage of various linked list. List the various operations of singly linked list.
5. Explain in detail about the Binary tree traversal with suitable example
6. Illustrate various searching techniques with suitable example.
7. Sort the given numbers using Selection sort and Merge sort  
45, 67, 12, 33, 98, 07, 15, 29, 87 , 52