



**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 : COS 2471/2587**

**TIME : 3 Hrs**

**COURSE TITLE : Data Structure using C++**

**MARKS : 75**

Answer **any 5** questions

**5\*15 = 75**

1. Elaborate linear array and its operations
2. Discuss in detail about the representation circular queue using array and linked list
3. Explain deletion operation in single linked list (first, last, intermediate) with an example
4. Elucidate operations and applications of binary search tree
5. Explain in detail about merge sort and insertion sort with suitable example
6. Give an account on implementation of Stack using array and linked list
7. Write a note on binary search with suitable example

\*\*\*\*\*