



# 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 1487**

**TIME : 3 Hrs**

**COURSE TITLE : : Digital Principles And Computer Organization**

**MARKS : 75**

### PART – A

**Answer ANY Five questions.**

**5 \* 15 = 75**

1. Explain a) logic gates with truth table and logic diagram.  
b) Boolean algebra Laws.
2. Simplify the Boolean expression  $AC' + B'D + A'CD + ABCD$  in  
a) Sum of products b). Product of sums
3. Explain about Half adder and full adder circuit with neat diagram.
4. Discuss about Multiplexer and Demultiplexer
5. Explain about JK flip flop's with neat diagram
6. Explain the types of computer registers.
7. Write about Auxiliary memory with neat diagram.