



# 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: MCA 4403/ 4423**

**Time: 3 Hrs**

**Title : Digital Principles and Computer Organization**

**Max : 75 marks**

**Answer any FIVE questions:**

**5 X 15 = 75**

1. Explain any four number systems and codes along with its uses.
2. Explain the POS method with a suitable example.
3. Explain the 1-to-16 De-multiplexer logic circuit.
4. Explain with the block diagram basic computer organization
5. Design and simplify a BCD to excess-3 logic circuit.
6. What is a Karnaugh map? Justify how it yields maximum simplification with suitable examples.
7. Comment on the primary memory.