

**SARDAR PATEL UNIVERSITY**  
**Programme & Subject: B.Sc (Electronics)**  
**Semester: VI**  
**Syllabus with Effect from: November-2013**

<b>Paper Code: US06CELE02</b>	<b>Total Credit: 3</b>
<b>Title of Paper: Digital Systems</b>	

Unit	Description in detail	Weightage (%)
I	The role of memory in a computer system, Memory Types and Terminology, memory Organization & operation, Reading and writing, RAMs, ROMs, and PROMs, Constituent of Memories, Read Only Memory (ROM), ROM organization, ROM timing .	25%
II	Types of ROMs, Semiconductor RAMs, Static RAMs, ECL RAMs, Dynamic RAMs, Address multiplexing, DRAM Refreshing, Tri-state switches.	25%
III	Introduction, Digital to Analog (D/A) conversion, The R-2R Ladder types DAC, The weighted Resistor type DAC, Analog to Digital conversion, The Counter type A/D converter, The tracking type A/D converter, The Flash type A/D converter.	25%
IV	Successive Approximation, The Counting Converter, A comparison of converter types, A converter using voltage to frequency converter, A converter using Voltage to Time conversion, A/D converter Specification, Introduction of ADC 0801.	25%

**Basic Text & Reference Books:**

- Fundamental of Digital circuits By : A.Anand Kumar
- Digital Integrated Electronics By : Herbert Taub & Donald Schilling
- Digital Fundamental By : Floyd

