

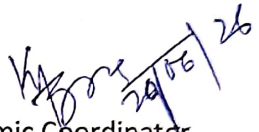
ACADEMIC SESSION : 2026-27

Discipline: Electrical Engineering	Semester: 5 TH	Name of the Teaching Faculty: Tilu Behera
Subject: Digital Electronics and Microprocessor	No. of days / week class allotted	Semester From date: 01/07/2026 to 05/11/2026 Nos. of Weeks per semester : 15
Week	Class Day	Theory/ Practical Topics
1 ST	1 st	Introduction, Number Systems
	2 nd	Decimal, Binary, Octal, Hexadecimal Conversions
	3 rd	1's & 2's Complements
2 ND	1 st	Binary, BCD, Excess-3 Codes
	2 nd	Gray & Alphanumeric Codes
	3 rd	Boolean Algebra & Theorems
3 RD	1 st	Logic Gates & Truth Tables
	2 nd	Universal Gates
	3 rd	SOP, POS, Minterms & Maxterms
4 TH	1 st	K-Map Minimization
	2 nd	Quine-McCluskey Method
	3 rd	Half & Full Adders
5 TH	1 st	Half & Full Subtractors
	2 nd	Binary Parallel Adder
	3 rd	MUX & DEMUX
6 TH	1 st	Decoder & Priority Encoder
	2 nd	Flip-Flops (SR, JK, D, T)
	3 rd	Sequential Circuit Design
7 TH	1 st	Counters
	2 nd	Shift Registers
	3 rd	Universal Shift Register
8 TH	1 st	Class Test-I & Revision
	2 nd	Stable & Unstable States
	3 rd	Cycles, Races & State Reduction
9 TH	1 st	Race-free Assignment & Hazards
	2 nd	Essential Hazards
	3 rd	Pulse Mode Sequential Circuits
10 TH	1 st	Hazard-free Design
	2 nd	Memory: ROM, PROM, EPROM, EEPROM
	3 rd	RAM: Static & Dynamic
11 TH	1 st	PLA, PAL & FPGA
	2 nd	8085 Architecture
	3 rd	Pin Diagram & Functional Blocks
12 th	1 st	Memory Organization
	2 nd	I/O Ports & Data Transfer
	3 rd	Timing Diagram & Interrupts

13 th	1 st	Instruction Format
	2 nd	Addressing Modes
	3 rd	Assembly Language Format
14 th	1 st	Data Transfer Instructions
	2 nd	Data Manipulation & Control Instructions
	3 rd	Looping & Indexing Programs
15 th	1 st	Lookup Table, Subroutine & Stack
	2 nd	8255 Architecture & Operating Modes
	3 rd	Revision, Previous Questions & Feedback


 Prepared By
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