LESSON PLAN

SUB: DIGITAL ELECTRONICS & MICROPROCESSOR LAB

BRANCH:- ELECTRICAL ENGG.

SEMESTER: 5th

SESSION:2024-2025

NAME OF FACULTY: TAPAN KUMAR DAS

DEPT.OF ELECT.ENGG GOVT.POLY.BHADRAK ESTD-2017

GOVERNMENT POLYTECHNIC, BHADRAK

Hod ,Electrical
HOD (ELECT.)
G.P.BHADRAK

Academic Co-ordinator
Academic Co-ordinator

Principal
Govt. Polytechnic, Bhadrak
Principal
Govt.Polytechnic
Bhadrak

DISCIPLINE *ELECTRICAL ENGG.*	SEMESTER 5^{TH}	NAME OF THE TEACHING FACULTY TAPAN KUMAR DAS (Lect. in Elect. Engg.)
SUBJECT *DIGITAL ELECTRONICS & MICROPROCESSOR LAB*	NO. OF DAYS/WEEK CLASS ALLOTTED – 45 (3P/week)	SEMESTER FROM DATE 01.07.2024 to 08.11.2024
WEEK	CLASS DAY	PRACTICAL TOPICS
1st	01	Verify truth tables of AND, OR, NOT, NOR, NAND, XOR, XNOR gates.
	02	Verify truth tables of AND, OR, NOT, NOR, NAND, XOR, XNOR gates.
2nd	01	Implement various gates by using universal properties of NAND & NOR gates and verify truth table
	02	Implement various gates by using universal properties of NAND & NOR gates and verify truth table
3rd	01	Implement half adder and Full adder using logic gates
	02	Implement half adder and Full adder using logic gates
4th	01	Implement half subtractor and Full subtractor using logic gates
	02	Implement half subtractor and Full subtractor using logic gates
5TH	01	Implement a 4-bit Binary to Gray code converter
	02	Implement a 4-bit Binary to Gray code converter
6TH	01	Implement a Single bit digital comparator

	02	Implement a Single bit digital comparator
7TH	01	Study Multiplexer and demultiplexer
	02	Study Multiplexer and demultiplexer
8TH	01	Study of flip-flops. i) S-R flip flop ii) J-K flip flop iii) flip flop iv) T flip flop
	02	Study of flip-flops. i) S-R flip flop ii) J-K flip flop iii) flip flop iv) T flip flop
9TH	01	Realize a 4-bit asynchronous UP/Down counter with a control for up/down counting
	02	Realize a 4-bit asynchronous UP/Down counter with a control for up/down counting
10TH	01	Implement Mode-10 asynchronous counters
	02	Implement Mode-10 asynchronous counters
11TH	01	General Programming using 8085A development board a. 1'S Complement. b. 2'S Complement
	02	General Programming using 8085A development board a. 1'S Complement. b. 2'S Complement
12TH	01	General Programming using 8085A development board Addition of 8-bit number. b. Subtraction of 8-bit number resulting 8/16 bit number
	02	General Programming using 8085A development board Addition of 8-bit number. b. Subtraction of 8-bit number resulting 8/16 bit number
13TH	01	Execute the different Ladder Diagram General Programming using 8085A development

		board a. Decimal Addition 8-bit number. b. Decimal Subtraction 8-bit number s
	02	Execute the different Ladder Diagram General Programming using 8085A development board a. Decimal Addition 8-bit number. b. Decimal Subtraction 8-bit number s
14TH	01	Interfacing using 8085 Traffic light control using 8255.
	02	Interfacing using 8085 Traffic light control using 8255.
15TH	01	Interfacing using 8085 . Generation of square wave using 8255
	02	Interfacing using 8085 Generation of square wave using 8255

SIGNATURE OF THE FACULTY

Lect.in Elect.Engg.
Govt.Poly.Bhadrak