LESSON PLAN FOR Digital Electronics & Microprocessor Lab(Pr3)

Department Of Electrical Engineering

Govt Polytechnic Nabarangpur

Discipline: Electrical Engineering	**Semester: 5th**	**Name of the Teaching Faculty: Sri. Mahesh Kumar Biswal**
Subject: Digital Electronics & Microprocessor Lab	**No. of days per week class allotted: 3**	**Semester From Date : 01/07/2024 to Date: 08/11/2024** **No. of Weeks: 15**

Week	Class Day	Theory/Practical Topic
1st	1st	1. Verify truth tables of AND, OR, NOT, NOR, NAND, XOR, XNOR gates.
2nd	2nd	2. Implement various gates by using universal properties of NAND & NOR gates and verify truth table.
3rd	3rd	3. Implement half adder and Full adder using logic gates. 4. Implement half subtractor and Full subtractor using logic gates.
4th	4th	5. Implement a 4-bit Binary to Gray code converter.
5th	5th	6. Implement a Single bit digital comparator.
6th	6th	7. Study Multiplexer and demultiplexer.
7th	7th	8. Study of flip-flops.i) S-R flip flop ii) J-K flip flop iii) flip flop iv) T flip flop
8th	8th	9. Realize a 4-bit asynchronous UP/Down counter with a control for up/down counting.
9th	9th	10. Realize a 4-bit synchronous UP/Down counter with a control for up/down counting.
10th	10th	11. Implement Mode-10 asynchronous counters.
11th	11th	12. Study shift registers.
		II) Microprocessor **(A) General Programming using 8085A development board**
12th	12th	1. a. 1'S Complement. b. 2'S Complement. 2. a. Addition of 8-bit number. b. Subtraction of 8-bit number resulting 8/16 bit number.
13th	13th	3. a. Decimal Addition 8-bit number. b. Decimal Subtraction 8-bit number 3. a. Compare between two numbers. b. Find the largest in an Array 5. Block Transfer.
		B) Interfacing using 8085
14th	14th	1. Traffic light control using 8255.
15th	15h	2. Generation of square wave using 8255

16/08/24
signature of HOD elctrical

16/08/24
Academic
Co-ordinator

Mahesh Kumar Biswal 16/08/24
signature of faculty