

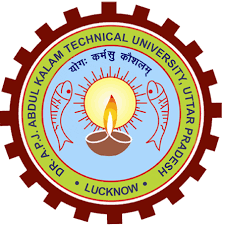
**DIGITAL LOGIC DESIGN LAB (REC-351)**

**DEPARTMENT OF**

**ELECTRONICS AND COMMUNICATION ENGINEERING**

**United Institute of Technology, Naini, Allahabad**

### ( Dr. A.P.J. Abdul Kalam Technical University, Lucknow, Uttar Pradesh)



**D-3, Industrial Area, Naini, Allahabad-211010  
Website:** [**www.united.ac.in**](http://www.united.ac.in)

**Name: -------------------------------------------------**

**Roll No: ------------------------------------------------**

**Branch/Sem/Sec**: **---------------------------------------**

**STUDY AND EVALUATION SCHEME OF REC-351 LABORATORY**

**Total No. Of Periods : 2 Periods per week**

**SESSIONAL EVALUATION:**

**INTERNAL EVALUATION**

**CLASS TEST : 30 MARKS**

**TEACHER’S ASSESMENT : 20 MARKS**

**TOTAL INTERNAL MARKS: 50 MARKS**

**END SEMESTER EXAM : 50 MARKS**

**TOTAL MARKS : 100 MARKS**

**CREDIT : 1**

**LIST OF EXPERIMENTS**

1. Introduction to digital electronics lab- nomenclature of digital ICs, specifications, study of the data sheet, Concept of Vcc and ground, verification of the truth tables of logic gates using TTL ICs.

2. Implementation of the given Boolean function using logic gates in both SOP and POS forms.

3. Verification of state tables of RS, JK, T and D flip-flops using NAND & NOR gates.

4. Implementation and verification of Decoder using logic gates.

5. Implementation and verification of Encoder using logic gates.

6. Implementation of 4:1 multiplexer using logic gates.

7. Implementation of 1:4 demultiplexer using logic gates.

8. Implementation of 4-bit parallel adder using 7483 IC.

9. Design, and verify the 4-bit synchronous counter.

10. Design, and verify the 4-bit asynchronous counter.

11. Implementation of Mini Project using digital integrated circuit’s and other components.

**INDEX**

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| **S. N.** | **Name of Experiment** | **Date of Performance** | **Date of Evaluation** | **Grade and Signature** |
| **1.** |  |  |  |  |
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