**LESSON PLAN**

**Name of the faculty: Sonia Lalita Tirkey**

**Session: 2020-2021**

**Discipline: Electronics & Telecommunication**

**Semester: 3rd**

**Subject: Digital Electronics**

**No. of weeks: 27**

**No. of periods allotted per week: 4 (as per SCTEVT)**

**No. of periods per week: 3 (online class)**

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| **Week** | **Class** | **Topic** | **Remarks** |
| 1st week  01/09/20  To  05/09/20 | 1st | Chapter-1  Introduction to digital electronics |  |
| 2nd | Number system |
| 3rd | Interconversion of number system |
| 2nd week  07/09/20  To  12/09/20 | 1st | Binary arithmetic operation |  |
| 2nd | 1’s & 2’s compliment |
| 3rd | Complement binary arithmetic |
| 3rd week  14/09/20  To  19/09/20 | 1st | Codes, BCD code | 17/09/20 (holiday) |
| 2nd | Ex-3, gray, alphanumeric codes |
| 3rd | Problems |
| 4th week  21/09/20  To  26/09/20 | 1st | Chapter-2  Logic gates |  |
| 2nd | Universal gates |
| 3rd | Boolean algebra |
| 5th week  28/09/20  To  03/10/20 | 1st | DeMorgan’s theorem | 02/10/20 (holiday) |
| 2nd | Minterm and maxterm |
| 3rd | Problems |
| 6th week  05/10/20  To  10/10/20 | 1st | k-map (2 & 3 variable) |  |
| 2nd | 4-variable k-map |
| 3rd | Don’t care condition, problem |
| 7th week  12/10/20  To  17/10/20 | 1st | Chapter-3  Combinational logic circuit, adder |  |
| 2nd | Subtractor |
| 3rd | Parallel adder, serial adder |
| 8th week  19/10/20  To  24/10/20 | 1st | Multiplexer |  |
| 2nd | Multiplexer application |
| 3rd | Demultiplexer |
| 9th week  26/10/20  To  31/10/20 | 1st | Durga puja |  |
| 2nd |
| 3rd |
| 10th week  02/11/20  To  07/11/20 | 1st | Encoder |  |
| 2nd | Decoder |
| 3rd | Digital magnitude comparator |
| 11th week  09/11/20  To  14/11/20 | 1st | 3-bit magnitude comparator |  |
| 2nd | Seven segment decoder |
| 3rd | problems |
| 12th week  16/11/20  To  21/11/20 | 1st | Chapter-4  Sequential logic circuit |  |
| 2nd | Latch |
| 3rd | S-R Flip-flop |
| 13th week  23/11/20  To  28/11/20 | 1st | D-flip-flop |  |
| 2nd | J-K flip-flop |
| 3rd | Internal assessment |
| 14th week  30/11/20  To  05/12/20 | 1st | Race-around condition | 30/11/20 (holiday) |
| 2nd | T flip-flop |
| 3rd | Application of flip-flop |
| 15th week  07/12/20  To  12/12/20 | 1st | Chapter-5  Registers, SISO shift register |  |
| 2nd | SIPO & PIPO shift register |
| 3rd | PISO shift register |
| 16th week  14/12/20  To  19/12/20 | 1st | Universal shift register |  |
| 2nd | Discussion of internal assessment |
| 3rd | Revision |
| 17th week  21/12/20  To  26/12/20 | 1st | Chapter-6  Counters | Christmas leave  25/12/20 (holiday) |
| 2nd |  |
| 3rd |  |
| 18th week  28/12/20  To  02/01/21 | 1st | Asynchronous counter | New year |
| 2nd | Up-down counter |
| 3rd | Design of asynchronous counter |
| 19th week  04/01/21  To  09/01/21 | 1st | Revision |  |
| 2nd | Revision |
| 3rd | Ring counter |
| 20th week  11/01/21  To  16/01/21 | 1st | Programmable logic device | 14/01/21 (holiday) |
| 2nd | Chapter-7  Logic families |
| 3rd | Characteristics of digital ICs |
| 21st week  18/01/21  To  23/01/21 | 1st | Transistor-transistor logic |  |
| 2nd | CMOS logic |
| 3rd | Revision |
| 22nd week  25/01/21  To  30/01/21 | 1st | Revision of chapter-1 | 26/01/21 (holiday) |
| 2nd | Revision of chapter-2 |
| 3rd | MCQ on chapter-1,2 |
| 23rd week  01/02/21  To  06/02/21 | 1st | Chapter-8  Introduction to ADC & DAC |  |
| 2nd | Weighted-resistor type DAC |
| 3rd | R-2R ladder type DAC |
| 24th week  08/02/21  To  13/02/21 | 1st | R-2R ladder type DAC |  |
| 2nd | Revision |
| 3rd | Revision |
| 25th week  15/02/21  To  20/02/21 | 1st | Basic principle of ADC |  |
| 2nd | Counter type ADC |
| 3rd | Successive approximation type ADC |
| 26th week  22/02/21  To  27/02/21 | 1st | Revision on chapter-3,4 |  |
| 2nd | Revision on chapter-5,6 |
| 3rd | Question paper discussion |
| 27th week  01/03/21  To  06/03/21 | 1st | Question paper discussion | 05/03/21 (holiday) |
| 2nd | Revision on chapter-7,8 |
| 3rd | Question paper discussion |