**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 week01/09/20To05/09/20 | 1st  | Chapter-1Introduction to digital electronics |  |
| 2nd  | Number system |
| 3rd  | Interconversion of number system |
| 2nd week07/09/20To12/09/20 | 1st  | Binary arithmetic operation |  |
| 2nd  | 1’s & 2’s compliment |
| 3rd  | Complement binary arithmetic |
| 3rd week14/09/20To19/09/20 | 1st  | Codes, BCD code | 17/09/20 (holiday) |
| 2nd  | Ex-3, gray, alphanumeric codes |
| 3rd  | Problems  |
| 4th week21/09/20To26/09/20 | 1st  | Chapter-2Logic gates |  |
| 2nd  | Universal gates |
| 3rd  | Boolean algebra |
| 5th week28/09/20To03/10/20 | 1st  | DeMorgan’s theorem | 02/10/20 (holiday) |
| 2nd  | Minterm and maxterm |
| 3rd  | Problems  |
| 6th week05/10/20To10/10/20 | 1st  | k-map (2 & 3 variable) |  |
| 2nd  | 4-variable k-map |
| 3rd  | Don’t care condition, problem  |
| 7th week12/10/20To17/10/20 | 1st  | Chapter-3Combinational logic circuit, adder |  |
| 2nd  | Subtractor  |
| 3rd  | Parallel adder, serial adder |
| 8th week19/10/20To24/10/20 | 1st  | Multiplexer  |  |
| 2nd  | Multiplexer application |
| 3rd  | Demultiplexer  |
| 9th week26/10/20To31/10/20 | 1st  | Durga puja  |  |
| 2nd  |
| 3rd  |
| 10th week02/11/20To07/11/20 | 1st  | Encoder  |  |
| 2nd  | Decoder  |
| 3rd  | Digital magnitude comparator |
| 11th week09/11/20To14/11/20 | 1st  | 3-bit magnitude comparator |  |
| 2nd  | Seven segment decoder |
| 3rd  | problems |
| 12th week16/11/20To21/11/20 | 1st  | Chapter-4Sequential logic circuit |  |
| 2nd  | Latch  |
| 3rd  | S-R Flip-flop |
| 13th week23/11/20To28/11/20 | 1st  | D-flip-flop |  |
| 2nd  | J-K flip-flop |
| 3rd  | Internal assessment |
| 14th week30/11/20To05/12/20 | 1st  | Race-around condition | 30/11/20 (holiday) |
| 2nd  | T flip-flop |
| 3rd  | Application of flip-flop |
| 15th week07/12/20To12/12/20 | 1st  | Chapter-5Registers, SISO shift register |  |
| 2nd  | SIPO & PIPO shift register |
| 3rd  | PISO shift register |
| 16th week14/12/20To19/12/20 | 1st  | Universal shift register |  |
| 2nd  | Discussion of internal assessment |
| 3rd  | Revision  |
| 17th week21/12/20To26/12/20 | 1st  | Chapter-6Counters  | Christmas leave25/12/20 (holiday) |
| 2nd  |  |
| 3rd  |  |
| 18th week28/12/20To02/01/21 | 1st  | Asynchronous counter | New year |
| 2nd  | Up-down counter |
| 3rd  | Design of asynchronous counter |
| 19th week04/01/21To09/01/21 | 1st  | Revision  |  |
| 2nd  | Revision  |
| 3rd  | Ring counter |
| 20th week11/01/21To16/01/21 | 1st  | Programmable logic device | 14/01/21 (holiday) |
| 2nd  | Chapter-7Logic families |
| 3rd  | Characteristics of digital ICs |
| 21st week18/01/21To23/01/21 | 1st  | Transistor-transistor logic |  |
| 2nd  | CMOS logic |
| 3rd  | Revision  |
| 22nd week25/01/21To30/01/21 | 1st  | Revision of chapter-1 | 26/01/21 (holiday) |
| 2nd  | Revision of chapter-2 |
| 3rd  | MCQ on chapter-1,2 |
| 23rd week01/02/21To06/02/21 | 1st  | Chapter-8Introduction to ADC & DAC |  |
| 2nd  | Weighted-resistor type DAC |
| 3rd  | R-2R ladder type DAC |
| 24th week08/02/21To13/02/21 | 1st  | R-2R ladder type DAC |  |
| 2nd  | Revision  |
| 3rd  | Revision  |
| 25th week15/02/21To20/02/21 | 1st  | Basic principle of ADC |  |
| 2nd  | Counter type ADC |
| 3rd  | Successive approximation type ADC |
| 26th week22/02/21To27/02/21 | 1st  | Revision on chapter-3,4 |  |
| 2nd  | Revision on chapter-5,6 |
| 3rd  | Question paper discussion |
| 27th week01/03/21To06/03/21 | 1st  | Question paper discussion | 05/03/21 (holiday) |
| 2nd  | Revision on chapter-7,8 |
| 3rd  | Question paper discussion |