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|  | NBKR INSTITUTE OF SCIENCE & TECHNOLOGY :: VIDYANAGAR  LESSON PLAN FORM  Form no: TEA/04/00 |

Department : **ELECTRICAL** **& ELECTRONICS ENGINEERING – B Section**

Academic Year : 2016-2017

Class : II B.Tech. II Semester

Subject : **PULSE AND DIGITAL CIRCUITS**

Faculty Name : **Sri M Raveendra**

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| **Sl. No.** | | **Description of Topic** | **No. of Periods** | | **Dates** | |
| **Planned** | **Taken** | |  |
|  | | UNIT – I |  |  | |  |
|  | | **Wave shaping circuits**: |  |  | |  |
| 1 | | Types of waveforms | 2 |  | |  |
| 2 | | Characteristics of pulse waveforms | 2 |  | |  |
| 3 | | RC low pass and high pass circuits | 3 |  | |  |
| 4 | | rise time, tilt | 2 |  | |  |
| 5 | | Diode as a switch | 1 |  | |  |
| 6 | | Diode clipper and clamper circuits | 3 |  | |  |
|  | | UNIT – II |  |  | |  |
|  | | Multivibrators: |  |  | |  |
| 1. | | BJT switch and switching times | 3 |  | |  |
| 2. | | Bistable multi-vibrator using BJT | 2 |  | |  |
| 3. | | Mono-stable multi-vibrator using BJT | 1 |  | |  |
| 4. | | Astable multi-vibrator using BJT | 1 |  | |  |
| 5. | | Schmitt-trigger | 2 |  | |  |
| 6. | | triggering methods | 1 |  | |  |
|  | **UNIT – III** | |  |  | |  |
|  | | Time Base circuits: |  |  | |  |
| 1. | | RC sweep circuits | 1 |  | |  |
| 2. | | constant current, Miller and Bootstrap time base generators using BJT’s | 2 |  | |  |
| 3. | | UJT relaxation oscillators | 3 |  | |  |
| 4. | | sampling gates | 1 |  | |  |

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| **Sl. No.** | **Description of Topic** | **No. of Periods** | | | **Dates** |
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|  | UNIT – IV |  | |  |  |
|  | MOS Transistor: |  | |  |  |
| 1. | MOS and CMOS Structure | 2 | |  |  |
| 2. | Operation (enhancement and depletion mode) | 2 | |  |  |
| 3. | I/V Characteristics | 1 | |  |  |
| 4. | Second Order effects - MOS Device capacitance | 1 | |  |  |
| 5. | Small signal model | 1 | |  |  |
|  | UNIT – V |  | |  |  |
|  | **Power Amplifiers:** | 2 | |  |  |
| 1. | Class-A amplifier | 2 | |  |  |
| 2. | Transformer coupled Class-A amplifier | 1 | |  |  |
| 3. | Class-B Push-pull amplifier | 2 | |  |  |
| 4. | Complementary Class-B push-pull amplifier |  | |  |  |
|  | Tuned amplifiers: | 1 | |  |  |
| 5. | Introduction, Q-factor | 2 | |  |  |
| 6. | small signal tuned amplifiers | 2 | |  |  |
| 7. | effect of cascading single tuned amplifier on bandwidth | 2 | |  |  |
| 8. | stagger tuned amplifiers |  | |  |  |
|  | Total : | **53** | |  |  |

Date: Faculty Signature

HOD Signature