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|  | NBKR INSTITUTE OF SCIENCE & TECHNOLOGY :: VIDYANAGARLESSON PLAN FORMForm 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