

KIIT POLYTECHNIC, BHUBANESWAR

LESSON PLAN Session (2023-2024)

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| Discipline: Electronics & Telecommunication Engineering | Semester: 2 nd Semester, Summer/2024 | Name of the Faculty: Dr. Gangadhara Mishra Sr. Lecturer Email ID: gdmishrafet@kp.kiit.ac.in |
| Subject: Basic Electronics, Theory-4B | No. of Days/week: 02 | Start Date: 29/01/2024 End Date: 14/05/2024 |

| Week | Class Day | Theory Topics |
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| 1st | 1st | Discuss basic Concept of Electronics and its application. |
| | 2nd | Explain basic Concept of Electron Emission. Explain thermionic, secondary, photo emission |
| 2nd | 1st | Classification of material according to electrical conductivity i.e. Conductor, Semiconductor & Insulator with respect to energy band diagram. |
| | 2nd | Difference between Intrinsic & Extrinsic Semiconductor. Difference between vacuum tube & semiconductor. Explain Integrated circuits (I.C) & its advantages. |
| 3rd | 1st | Explain principle of working and use of PN junction diode. |
| | 2nd | Explain principle of working and use of Zener diode. |
| 4th | 1st | Explain principle of working and use of Light Emitting Diode (LED). |
| | 2nd | Revision |
| 5th | 1st | Quiz |
| | 2nd | Explain Rectifier & its uses. Principles of working of Half wave rectifier with their merits and demerits. |
| 6th | 1st | Explain principles of working of center tapped and bridge type full wave Rectifiers with their merits and demerits |
| | 2nd | Explain functions of filters and classification of simple Filter circuit (Capacitor, choke input and π) |
| 7th | 1st | Explain working of D.C power supply system (unregulated). |
| | 2nd | Explain Transistor, Different types of Transistor Configuration. |
| 8th | 1st | State output and input current gain relationship in CE, CB and CC configuration. |
| | 2nd | Explain Need of biasing. Explain self biasing. |

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| 9th | 1st | Explain Feedback resistor and Potential divider biasing |
| | 2nd | Explain Amplifiers concept, working principles of single phase CE amplifier. |
| 10th | 1st | Explain Electronic Oscillator and its classification. Working of Basic Oscillator. |
| | 2nd | Revision |
| 11th | 1st | Quiz |
| | 2nd | Explain basic communication system. Concept of Modulation and Demodulation. Differentiate between them. |
| 12th | 1st | Explain different types of Modulation (AM, FM & PM) |
| | 2nd | Explain concept of Transducer and sensor with their differences. Different type of Transducers & concept of active and passive transducer. |
| 13th | 1st | Explain working principle of photo emissive, photoconductive, photovoltaic transducer and its application |
| | 2nd | Explain Multimeter and its applications. Differentiate Analog and Digital Multimeter. |
| 14th | 1st | Explain working principle of Multimeter with Basic Block diagram |
| | 2nd | Explain CRO, working principle of CRO with simple Block diagram. |
| 15th | 1st | Question Discussion |
| | 2nd | Question Discussion |

Concerned Faculty

H.O.D.