

SYNERGY SCHOOL OF ENGINEERING DEPARTMENT OF ELECTRICAL ENGINEERING

| Discipline :CSE/CE& MI | Semester:- 2 ND sem | Name of the teaching faculty:- PRAJNAPARAMITA KABI |
|--------------------------------|---|--|
| Subject:- basic electronics | No. of Days/week class Allotted:-2 | No. of weeks:-15 SESSION-2023-2024 SUMMER |
| No. of week | No. of class | Topic to be Taught |
| 1 | 1 st 2 nd | Introduction class Basic Concept of Electronics |
| 2 | 1g | Electron Emission & different types |
| | 2 nd | Classification of material according to electrical conductivity |
| 3 | 1st | Conductor, Semiconductor & Insulator) with respect to energy band diagram only |
| | 2 ^{rid} | Intrinsic & Extrinsic Semiconductor |
| 4 | 1 12 | Difference between vacuum tube & semiconductor. |
| | 2 nd | Principle of working and use of PN junction diode, Zener diode and Led |
| 5 | 12 | Basic concept of manufacturing integrated circuits (I.C) & its uses. |
| | 2 nd | Define Rectifier & its use |
| 6 | 1 14 | Principles of working of different types of Rectifiers and their merits and demerits |
| | 2 nd | Functions of filters and classification of filter characteristics |
| 7 | 1 st | D.C power supply system with help of block diagrams |
| | 2 nd | Different types of Transistor Configuration and state output and input current gain relationship in CE,CB and CC configuration |
| 8 | 1 ₈ | Need of biasing and different types of biasing with circuit diagram.(CE configuration |
| | 2 nd | Amplifiers and how amplification of signal is achieved by the help of transisto |
| 9 | l a | Working of a single phase RC coupled Amplifier and discuss its frequency response and gain verses bandwidth relationship |
| | 2 nd | Basic function of Oscillation |
| 10 | l n | Essentials of Transistor oscillators and its classifications |
| 1 | 2 ^{rid} | Basic communication system with help of Block diagram Modulation |
| 11 | l et | Different types of Modulation (AM, FM & PM) |
| | 2 nd | Working of Super heterodyne Radio Receiver |

| 12 | 1 st | Block diagram of Radio Transmitter & Receiver |
|----|-----------------|---|
| | 2 nd | Concept of Transducer and Primary sensor . |
| 13 | l st | Different type of Transducers & concept of active and 34passive transducer |
| | 2 nd | Mechanical primary transducers, devices, springs and Bourden tube diaphr3agm |
| 14 | 1 st | Working principle and application of LVDT |
| | 2 nd | Working principle of photo emissive, photoconductive, photovoltaic transducer and its application |
| | 1 st | Multimeter, types and applications |
| | 2 nd | CRO , Block diagram of CRO and applications of CRO. |
| | 3 rd | Basic concept of automatic control system |

Signature of the faculty

HOD,EE