

## UNIT - 1

- MOSFET
- CMOS
- Full wave
- Half wave
- IV characteristics of diode
- Common Emitter, Common Base Configuration (Input and Output Characteristics)
- Zener diode as a voltage regulator
- BJT as a switch
- CE-RC coupled amplifier.

Problems on full wave, half wave, Alpha Beta  $i_c$ ,  $i_b$  related problems, Zener current.

## UNIT -2

- Inverting and Non Inverting Amplifier
- Comparator any one out of 4
- integrator, voltage follower
- RC phase shift oscillator
- Negative voltage series feedback
- IC 555

Problems on Colpitts, Hartley, Voltage Adder, IC Oscillator, IC 555, Non inverting, Inverting.

## UNIT - 3

- Elements of embedded systems
- Frequency reuse, capacity of cluster
- Modulation
- Difference microprocessor microcontroller
- Basic elements of communication system
- Communication channel-wired and wireless
- Noise
- Sensor and actuator, Optocoupler