



RAVINDRA COLLEGE OF ENGINEERING FOR WOMEN

II B tech -I Semester (R19)

Branch: ECE

Academic year 2020-21

Subject : Electronic Devices and Circuits(19A04302T)

UNIT: 1

S No	Questions (Short)	CO	Cognitive Level
1	Define Insulator, Semiconductor and Conductor.	C202.1	Remember
2	Define Intrinsic and Extrinsic Semiconductors.	C202.1	Remember
3	Name some P-type and N-type impurities.	C202.1	Remember
4	Define Fermi level and draw the Fermi level in Intrinsic and Extrinsic Semiconductors.	C202.1	Remember
5	Define Mass Action Law and Einstein's relation.	C202.1	Remember
6	Define static & dynamic resistance of a diode.	C202.1	Remember
7	Differentiate ideal vs practical diodes with equivalent circuits.	C202.1	Analyse
8	Name few applications of PN diode.	C202.1	Remember

S No	Questions (Essay)	CO	Cognitive Level
1	Explain with neat sketch the structure of an atom and suggest why silicon is widely used than germanium in electronic industry.	C202.1	Understand
2	Define Diffusion current and derive an expression for diffusion current density of holes and electrons.	C202.1	Remember
3	Define Drift current and explain necessary equations of drift current density.	C202.1	Remember
4	Explain about Hall Effect and derive the relation for Hall Voltage and Hall coefficient.	C202.1	Understand
5	Derive an expression for Continuity Equation with neat sketch.	C202.1	Apply
6	Describe the operation of forward bias and reverse bias of a PN diode.	C202.1	Understand
7	Explain with neat sketch the volt-ampere characteristics of PN diode.	C202.1	Understand
8	Derive an expression for current equation of PN diode.	C202.1	Apply
9	Explain the temperature dependence of V-I characteristics of diode.	C202.1	Understand
10	Explain the break down mechanisms in semiconductor diodes	C202.1	Understand