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G. H. Raisoni of Engineering and Management, Pune.
(An Autonomous Institution)
F. Y. B .Tech (Term- I)
CAE II- 2020(2020 Pattern)
Introduction to Discrete Devices (UECL105)

[Time: 1 Hours] **[Max. Marks: 15]**

Course Outcome

CO1: Relate operation of diodes, types of diodes and their role in design of simple electronic applications.

CO2: Develop the capability to analyze and design simple circuits containing non-linear elements such as transistors using the concepts of load lines, operating points for various biasing methods.

CO3: Classify Power amplifiers, Oscillators & Display Devices.

CO4: Interpret the operation of the Field Effect Transistor (FET), Metal Oxide Semiconductor Field Effect Transistor (MOSFET) and design FET circuits

CO5: Demonstrate familiarity with basic electronic components and use them to design simple electronic circuits.

Instructions to the candidates:

1) All questions compulsory
2) Neat diagrams must be drawn wherever necessary.
3) Figures to the right indicate full marks.
4) Assume suitable data, if necessary.

CO2	a)	What is BJT and explain its different types with symbol and structure.	[3]
	b)	Design single stage CE amplifier and explain in details.	[5]
CO3	a)	Explain the following terms in details 1) Gain of BJT 2) Stability factor 3) Need of Stabilization	[3]
	b)	Define DC load line with proper circuit diagram and explain Q-Point.	[4]

**********All the best**********