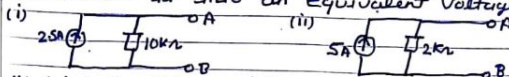


Note → Attempt Any two question in every parts

1(a) Convert it into an equivalent Voltage Source -



(b) What the difference between N type and P type Semiconductor?

(c) find out the Colour Coding → Yellow, Violet, Orange and gold

2(a) Explain Conductor, Insulator and Semiconductor using the Energy Band diagrams?

(b) Draw its V-I characteristics of diode and Explain?

(c) Calculate the (R.M.S value, Efficiency, PIV, Ripple) of full wave Rectifier?

3(a) to find out the Relation between I_{CEO} and I_{CO} ?

(b) Explain the two types of Reverse Breakdown ?

(c) Explain CE Configuration? Relation Between α, β, γ ?

4(a) What the difference between D.C load line & A.C load line?

(b) What is the operating Point? Why is need of Operating point?

(c) Give the Concept of Potential divider Biasing Circuit?

(1) Thermal Runway Process (2) Stability factor

5(a) difference between JFET, MOSFET, BJT, and CMOS ?

(b) In JFET Calculate, Mutual Conductance, Drain Resistance and Amplification factor?

(c) Calculate the V_{CE} and I_C -

if $\beta = 50$, $V_{CC} = 20V$, $R_C = 2k\Omega$

$R_E = 0.1k\Omega$, $R_1 = 100k\Omega$, $R_2 = 5k\Omega$

$V_{BE} = 0.2$ volt $V_{CE} = ?$ $I_C = ?$

