# ANURAG GROUP OF INSTITUTIONS 

(Formerly CVSR College of Engineering)
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B.Tech-I ${ }^{\text {st }}$ year
(Common to ECE,CSE,IT\&AI)
BEE- Assignment questions

1) Derive the expressions for Star-Delta transformation and Delta-Star transformation?
2) a)Find the voltage across the three resistors shown in the figure

b) Find the magnitude of total current, current through R1and R2 if R1=10 ohms, R2=20 ohms and $\mathrm{V}=50$ volts as shown in the figure.

3) Using Super position Theorem, find the current passing through the 16 ohm Resistance?

4) For the circuit shown in the figure, find the Thevenin's equivalent across 0.8 ohms resistance and hence find the current through it.

5) a)Define i) Instantaneous Value ii) Peak Value iii) Frequency iv) Time Period.
b) Derive Average and RMS values of Sine Wave \& also Define form factor and peak factor.
6) Find Equivalent resistance between terminal A \& B?

7) State thevinins theorem ? By Using Thevenin's theorem, find the current in $100 \Omega$ resistor?

8) A series RL circuit with $\mathrm{R}=100 \Omega, \mathrm{~L}=0.5 \mathrm{H}$ has an applied voltage of $230 \mathrm{~V}, 50 \mathrm{~Hz}$ frequency. Calculate a) impedance b) current c) power factor d) Active power e) phasor diagram?
