BEE - MSE - 1

One mark ones clubbed together or MCQ

<u>Some definition:</u>

Energy , Power , waveform , cycle , time period , frequency , instantaneous value , peak value , peak to peak value , peak amplitude , phase ,form factor , peak factor , true or active power ,Reactive power , apparent power , relationship between line voltage phase voltage line current phase current in star and Delta connection.

<u>Problems</u>

•Mesh analysis

•Nodal analysis

•To find rms voltage, instantaneous voltage, frequency, instantaneous current

•To find Power, Voltage and current equation, Xl, Xc, for pure resistive or pure inductive or pure capacitive circuit

•RLC circuit -find phase angle, current, frequency, resistance, Impedence, Power factor, Power consumed, voltage across R,L,C

•Problems to find line current, phase current, in delta and star.

•Power factor formula problems-$\cos(\tan^{-1}(\sqrt{3}(w2-w1)/(w2+w1)))$

<u>Derivation</u>

- Average value, rms value, purely resistive circuit, purely inductive circuit, purely capacitive circuit (for these 3 waveform, circuit diagram, phasor diagram is necessary)
- RLC combined circuit 3 cases of Impedence
- R<u>**elationship between line and phase quantity in star connection**</u>, **Relationship between line and phase quantity in delta connection** both 6m imp
- Expression for 3 phase power
- Measurement of three phase power using 2 wattmeter