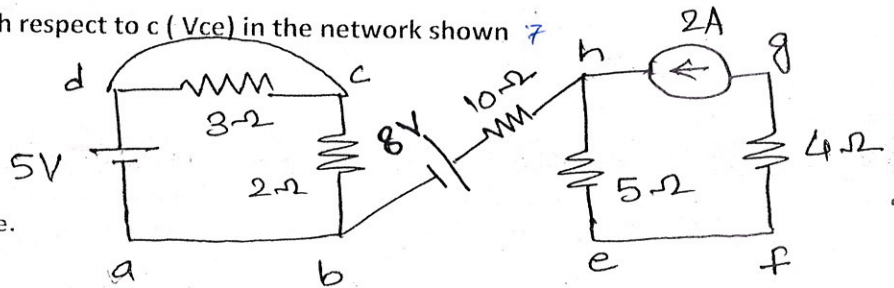


Q.1) Solve any five. (2 Marks each)

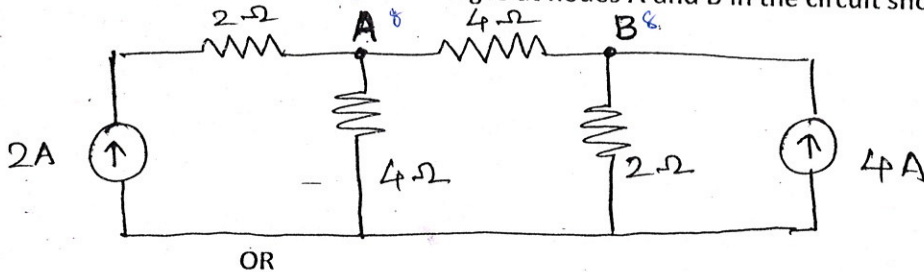
- a) Define *i)* Ideal current source *ii)* KVL
- b) An alternating current i is given by $i = 141.4 \sin 314t$. Find *i)* Maximum value *ii)* instantaneous value when time is 3ms. *iii)* Time Period
- c) State maximum power transfer theorem and derive the condition for maximum power transfer.
- d) Define *i)* Instantaneous value *ii)* peak factor
- e) Find the potential at point e with respect to c (V_{ce}) in the network shown



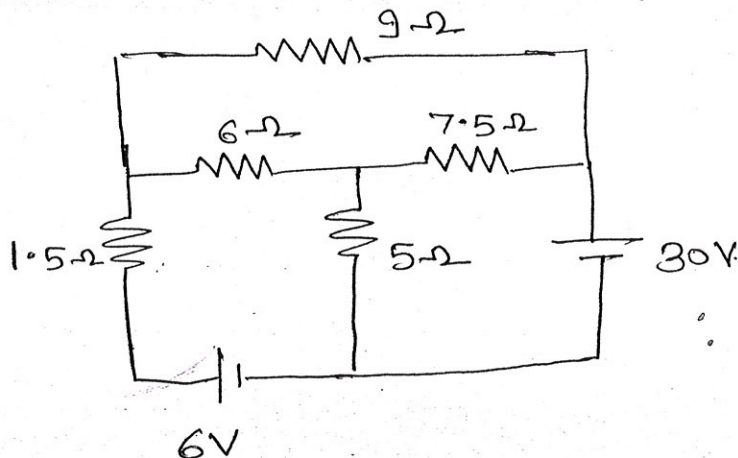
- f) Define and explain Average value.

Q.2) Solve (5 marks)

- a) By nodal analysis, determine the voltages at nodes A and B in the circuit shown.

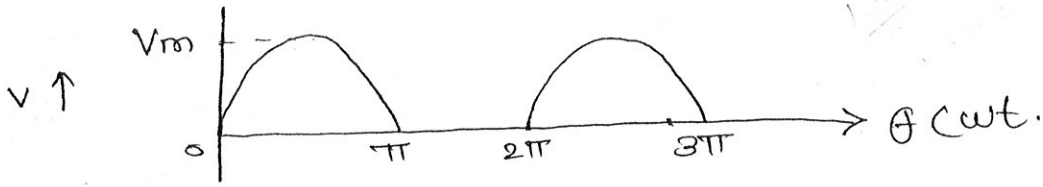


- b) Determine the current through 1.5 Ω resistor in the network shown by Thevenin's theorem.



Q.3) Solve (5 marks)

a) Find rms value of the waveform shown in fig. $0.707 V_m$



OR

b) Find the average value of the waveform shown in fig.

