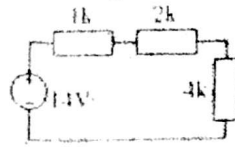
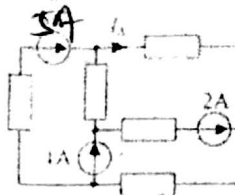


Part-A (5x2=10marks)

1. State Kirchhoff's current law
2. Define magnetic flux
3. Calculate the power supplied by the voltage source for the circuit given below



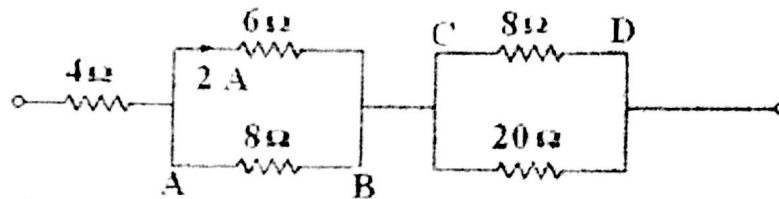
4. Write any two analogies between electric and magnetic circuit
5. Determine the current I_x in the following circuit.



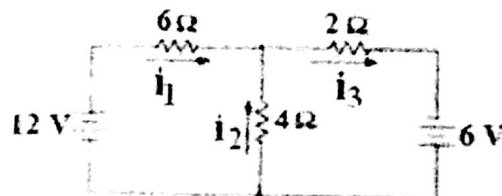
All values = 1kΩ

Part-B (2x7.5=15marks) Answer any two

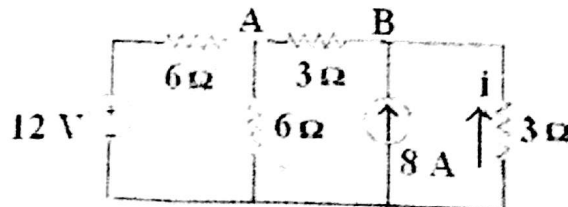
6. (a) The current in the 6Ω resistor of the network shown in figure is 2A. Determine the current in all branches and the applied voltage.



- (b) Determine all the branch currents in the following circuit.



7. Using nodal analysis, determine the current i .



8. (a) What is current division technique?
(b) Find the equivalent resistance across the voltage source

