

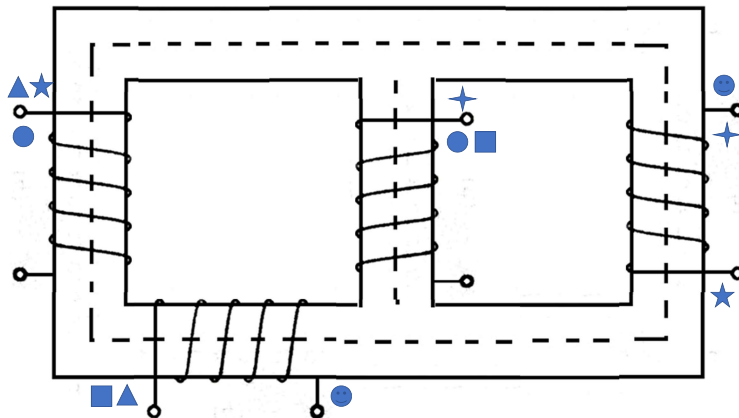
LAHORE UNIVERSITY OF MANAGEMENT SCIENCES
 Department of Electrical Engineering

EE240 Circuits I
 Quiz 03 - Section 2 - Solutions

Total Marks: 10
Time Duration: 15 minutes

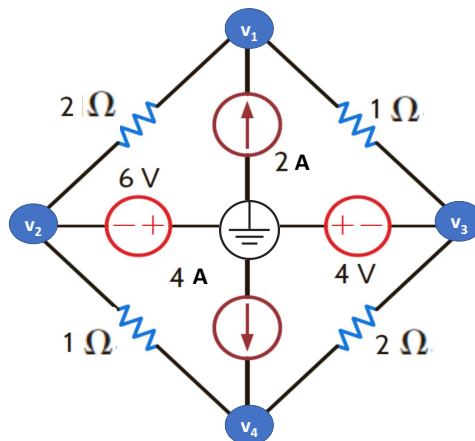
Question 1 (6 marks)

The figure below show windings marked on a magnetic flux-conducting core. Mark the dots on the windings to establish the mutual coupling.



Question 2 (4 marks)

Formulate the network equations for the following circuit using the Kirchhoff current law.



Node 1: $\frac{v_1 - v_2}{2} + \frac{v_1 - v_3}{1} = 2$

Node 2: $v_2 = -6$

Node 3: $v_3 = -4$

Node 4: $\frac{v_4 - v_3}{2} + \frac{v_4 - v_2}{1} = 4$