

PVPP College of Engineering, Mumbai

Department of General Engineering

Mid-Semester Test SH-2015

Sem-1 All Branches Sub: BEEE Max. Marks: 20

Time: 9-30AM to 11AM Date: Sept. 08, 2015

Note: (1) Q.1 is Compulsory, (2) Attempt any three questions from Q.2 to Q.5.
(3) Each question carry 5 Marks. (4) Assume suitable data wherever required with proper justification

Q1 What voltage should be applied to the circuit given below through the adjustable source E?

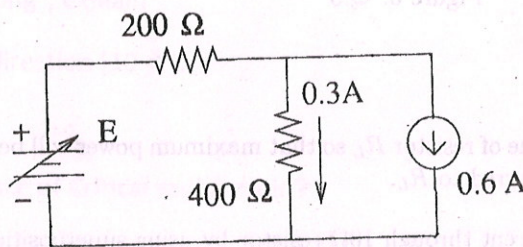


Figure 1: Q.1

Q2 Find the current through $4\ \Omega$ resistor by source conversion technique.

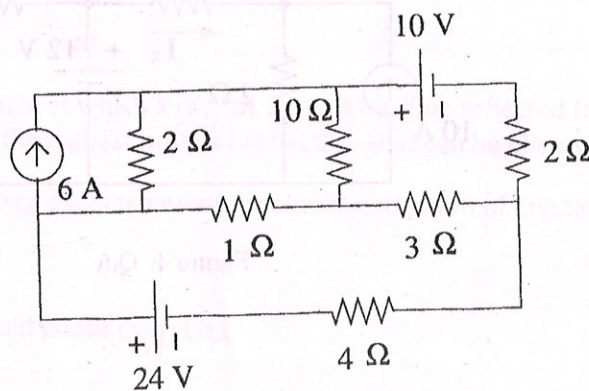


Figure 2: Q.2

Q3 For the circuit given below, find the power dissipated in 1Ω resistor by nodal analysis

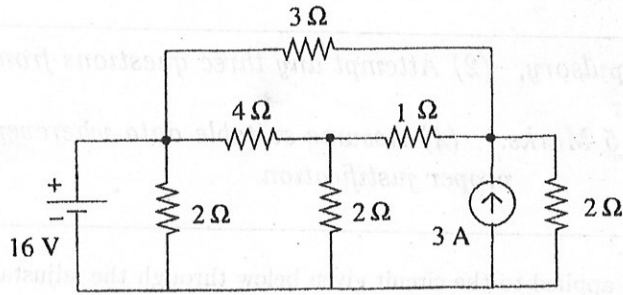


Figure 3: Q.3

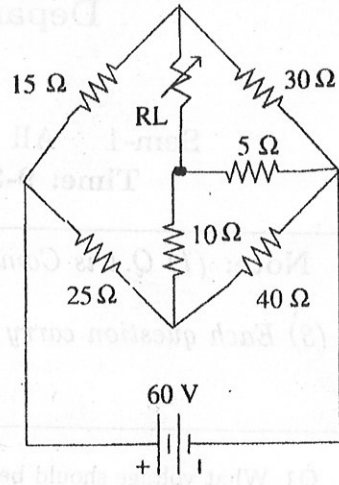


Fig. Q.4

Q4 Find the value of resistor R_L so that maximum power will be transferred to it. Also find maximum power transferred to R_L .

Q5 Find the current through 10Ω resistor by using superposition theorem.

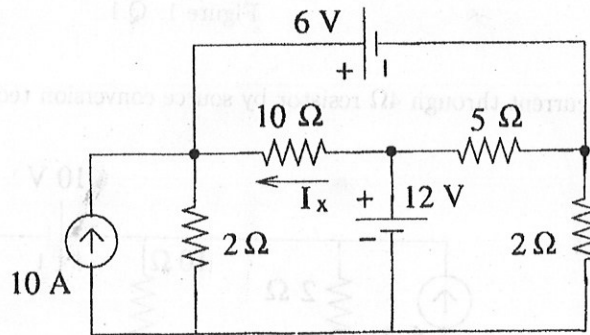


Figure 4: Q.5

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