

Department of Electrical Engineering
Final Assignment
Date: 24/06/2020

Course Details

Course Title: _____ Linear Circuits Analysis _____
Instructor: _____

Module: _____ 3 _____
Total Marks: _____ 50 _____

Student Details

Name: _____

Student ID: _____

INSTRUCTIONS:

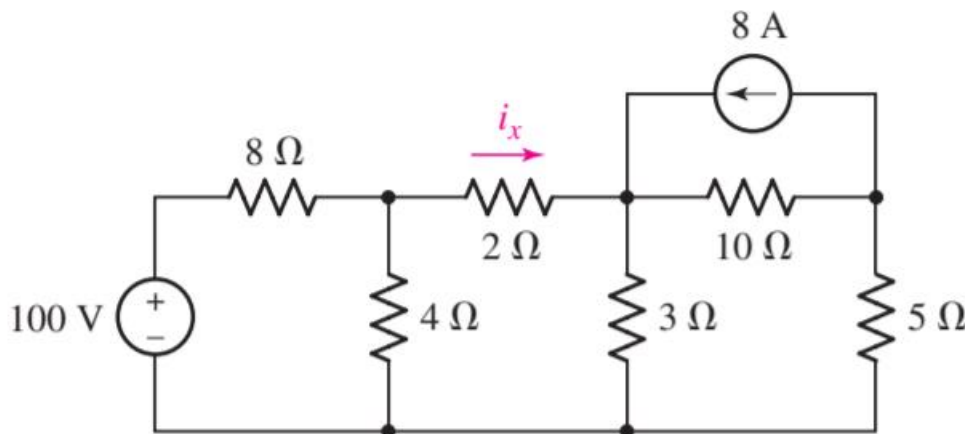
1. The solution must be uploaded before the end of deadline mentioned on the Online Portal of subject.

Question 1

(15)

Find the Value of i_x for the circuit using

- i. Nodal Analysis
- ii. Mesh Analysis
- iii. Superposition Theorem
- iv. Compare the number of steps and degree of easiness of all the three methods with each other

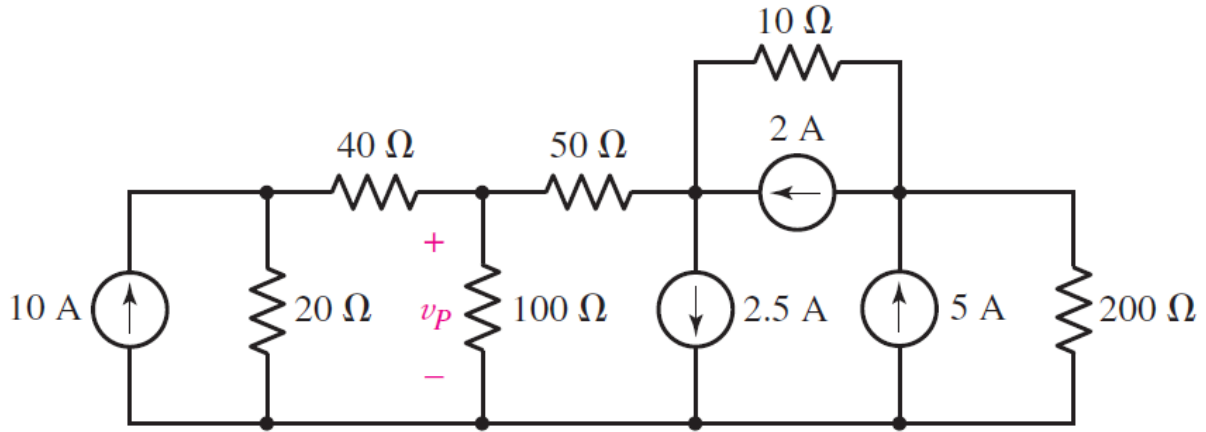


Question 2

(20)

Consider the 200 ohms resistor in figure as load resistor and develop

- i. Thevenin equivalent circuit
- ii. Norton equivalent circuit.
- iii. Find out what value of Thevenin resistance should be used to deliver maximum power to the load



Question 3

(15)

Obtain an expression for V_{out} in terms of v_1 , v_2 , and v_3 for the op amp circuit in figure, also known as a summing amplifier.

