UNITED INTERNATIONAL UNIVERSITY (UIU)

Dept. of Computer Science & Engineering

Course No: EEE 2113 Title: Electrical Circuits (Summer 2024)

Assignment - 01

1. Determine the followings for the circuit shown in Figure 1. (10)

a. Determine the total impedance of the circuit. (3)

b. Determine i(t) where i(t) is the total current of the circuit. (2)

c. Determine the voltage(v_0) across the 0.1H inductor. (3)

d. Determine the phase difference between the source voltage and the voltage across the 0.1H inductor and also determine which one is leading. (2)

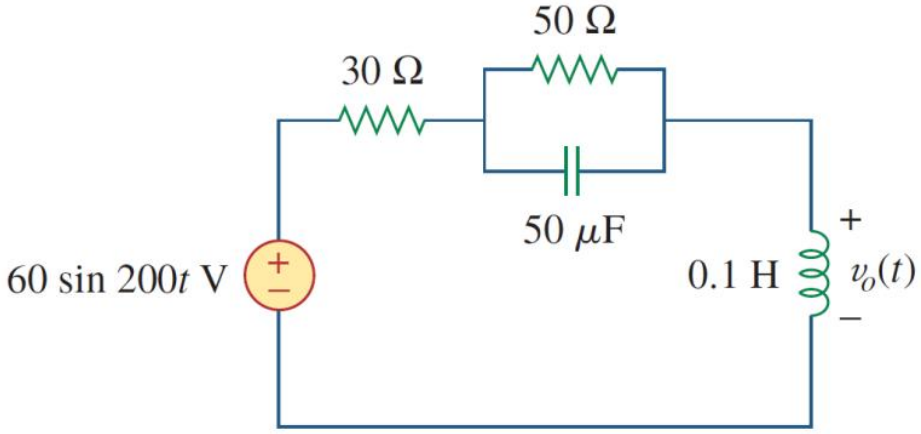

Figure 01

2. For the circuit in Figure 2, find the Thevenin equivalent circuits at terminals a-b. (10)

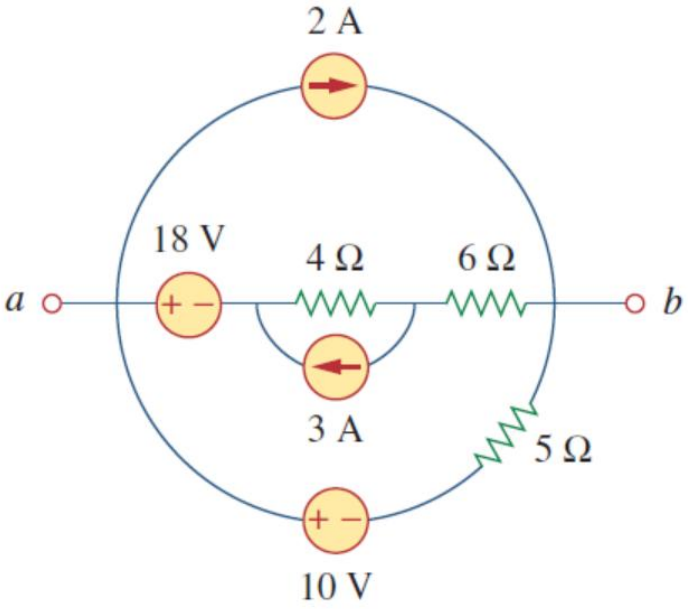

Figure 02

2. Use the Superposition Principle to solve for I_1, I_2, I_3 in the following circuit