Issue Date: 17th Jan, 2020 Due by: 24th Jan, 2020 5:00 PM

ECE113 Basic Electronics
Assignment 1

1) All Questions are compulsory.
2) Please use notations appropriately.
3) Maximum Marks:20 (4 marks each)
4) All the students are requested to submit hard copies of their assignments as per the deadline.
5) You can deposit your assignments in the respective boxes for each section (read the overleaf on each box carefully) kept near the Academic Section 2nd Floor A-wing - Old Academic Building. Please note
   a) You must staple the assignment properly.
   b) Mention your Name, Roll no, Section and Group clearly on each sheet of the assignment. Specify sheet number on the top of each sheet.
   c) Use A4 size sheets only (ruled or blank). Do not submit notebooks/notepads.

——-Questions——

1. Find the power absorbed by each of the elements in the circuit shown below.

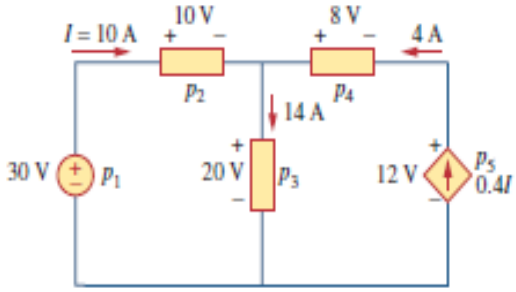

Figure 1:

2. The current through an element and voltage across it is shown below in Figure 2.
   a) Sketch the power delivered to the element for t>0.
   b) Find the total energy absorbed by the element for the period 0<t<4s.

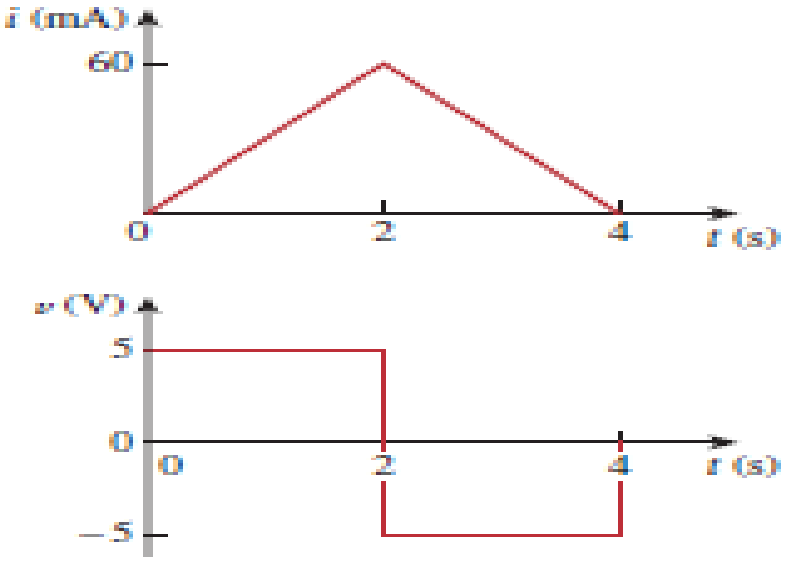

Figure 2.

3. Determine the current 'i' and voltage 'Vo' in the circuit shown below.

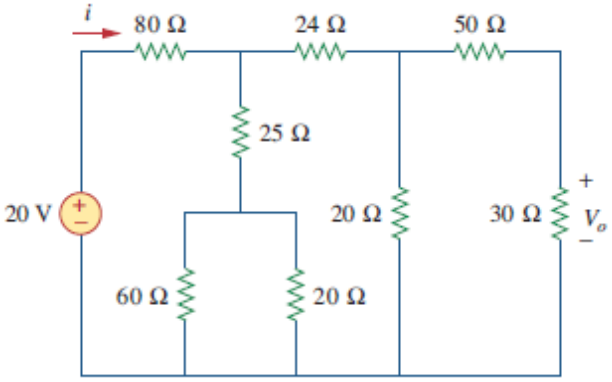

Figure 3:

4. Determine the current i_o and equivalent resistance Req for the circuit shown in Figure 4.

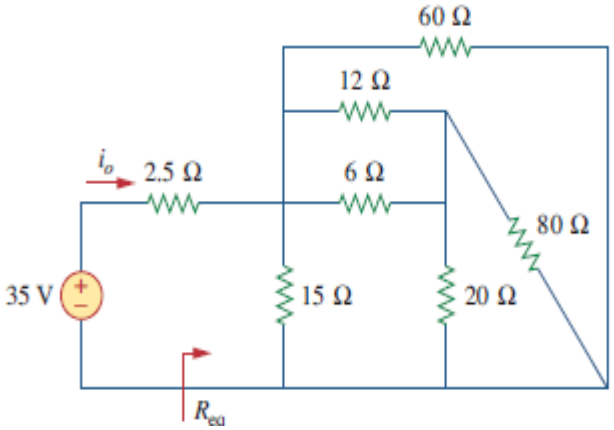

Figure 4:

5 .Write the node-voltage equation and find the values of V1 and V2 in the given circuit.

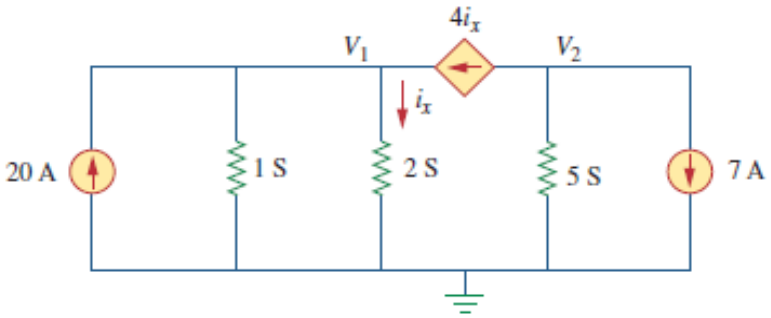

Figure 5: