

Department of Electrical Engineering

Assignment 3

Date: 25/06/2020

Course Details

Course Title: _____

Module: _____

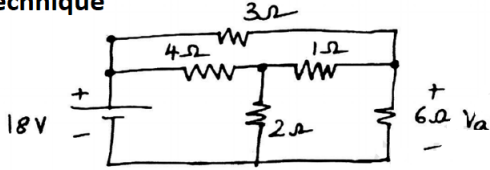
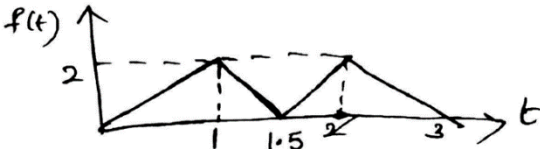
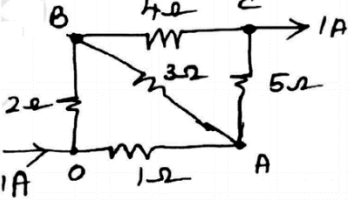
Instructor: _____

Total Marks: _____

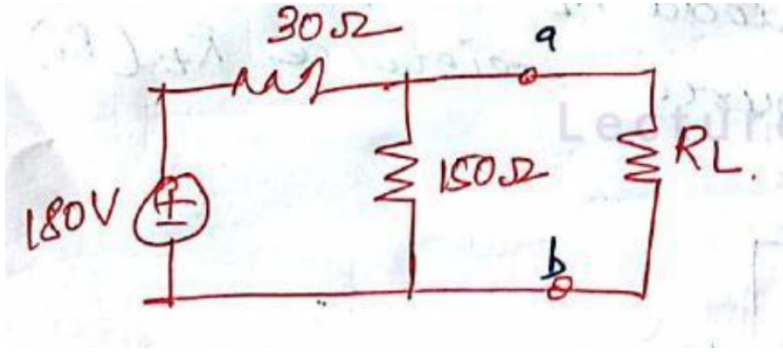
Student Details

Name: _____

Student ID: _____

Q1	<p>a. Derive the expression for: (i) Δ to Y transformation (ii) Y to Δ transformation b. Calculate the voltage across the 6Ω resistor in the network of Fig.Q1(b) using Source shifting technique</p> <div style="text-align: center;">  <p>Fig.Q1(b)</p> </div>
Q2	<p>Obtain Laplace transform of: (i) Step function (ii) Ramp function (iii) Impulse function Find the Laplace transform of the waveform shown in Fig.Q6(b).</p> <div style="text-align: center;">  <p>Fig.Q6(b)</p> </div>
Q3	<p>Find currents in all the branches of the network shown in Fig.Q2(b) using mesh analysis.</p> <div style="text-align: center;">  <p>Fig.Q2(b)</p> </div>

Q4 Find the load R_L that will result in maximum power delivered to load for circuit in figure also determine maximum power P_{max} ?



Q5 Show that resonant frequency of series resonant circuit is equal to the geometric mean of two half power frequencies.

GOOD LUCK