RLC SERIES

**Step 1:** Make connections as per the instructions given below:

(a) (1-3), (2-4)

(b) (5-7), (6-8)

(c) (7-9), (10-13), (13-14)

(d) (11-17), (8-11)

(e) (15-17), (16-18), (18-25)

(f) (19-25), (20-26)

(g) (21-26), (11-22)

(h) (21-23) (22-24)

**Note: Click on the label to delete the connection for the corresponding node.**

**Step 2:** (a) Now, Check the connections by clicking on ‘**CHECK**’ button.

(b) If the connections are **‘Invalid connections’** click on corresponding node to remove the connection.

(c) And if the connections are **‘Right Connections’** then follow the below steps.

**Step 3:** Turn on the MCB.

**Step4:** Then, Switch on the variac by clicking on the button.

**Step5:** Click on the variac knob to set the voltage at 220V.

**Note: Once, we have click on the variac knob it automatically set to 220 V. So we don't have to set it again.**

**Step6:** Now, Click on ‘**ADD**’ button to add the readings in the observation table.

**Step7:** In Calculations section, We have to manually calculate the values by using the formula.

**Step 8:** Click on ‘**PRINT**’ button to takeout the print of the webpage.

**STEP 9:** Click on ‘**RESET**’ button to reload the webpage.

RLC PARALLEL

**Step 1:** Make connections as per the instructions given below:

(a) (1-3), (2-4)

(b) (5-7), (6-8)

(c) (7-9), (10-13), (13-14)

(d) (12-15), (16-17), (11-18), (8-11)

(e) (15-19), (19-23)

(f) (20-25), (18-26)

(g) (21-24), (22-26)

**Note: Click on the label to delete the connection for the corresponding node.**

**Step 2:** (a) Now, Check the connections by clicking on ‘**CHECK**’ button.

(b) If the connections are **‘Invalid connections’** click on corresponding node to remove the connection.

(c) And if the connections are **‘Right Connections’** then follow the below steps.

**Step 3:** Turn on the MCB.

**Step4:** Then, Switch on the variac by clicking on the button.

**Step5:** Click on the variac knob to set the voltage at 220V.

**Note: Once, we have click on the variac knob it automatically set to 220 V. So we don't have to set it again.**

**Step6:** Now, Click on ‘**ADD**’ button to add the readings in the observation table.

**Step7:** In Calculations section, We have to manually calculate the values by using the formula.

**Step 8:** Click on ‘**PRINT**’ button to takeout the print of the webpage.

**STEP 9:** Click on ‘**RESET**’ button to reload the webpage.

SERIES RESONANCE RLC

**Step 1:** Make connections as per the instructions given below:

(a) (1-3), (2-4)

(b) (3-5), (4,6)

(c) (5-7), (8-9)

(d) (10-11), (12-13), (6-14)

**Note: Click on the label to delete the connection for the corresponding node.**

**Step 2:** (a) Now, Check the connections by clicking on ‘**CHECK**’ button.

(b) If the connections are **‘Invalid connections’** click on corresponding node to remove the connection.

(c) And if the connections are **‘Right Connections’** then follow the below steps.

**Step 3:** Turn on the MCB.

**Step 4:** Click on Function Generator **‘Power’** button.

**Step 5:** Now, Vary the frequency by moving the slider.

**Step 6:** Now, Click on ‘**ADD**’ button to add the readings in the observation table.

**Step 7:** Repeat Step 5 to Step 6 until we get the 8th reading in the observation table.

**Step 8:** Click on ‘**PLOT’** button to plot the graph.

**Step 9:** In Calculation section, We have to manually calculate the Resonance frequency and verify it with the help of Verify button.

**Step 10:** Now, Calculate Quality factor by using the formula.

**Step 11:** Click on ‘**PRINT**’ button to takeout the print of the webpage.

**Step 12:** Click on ‘**RESET**’ button to reload the webpage.