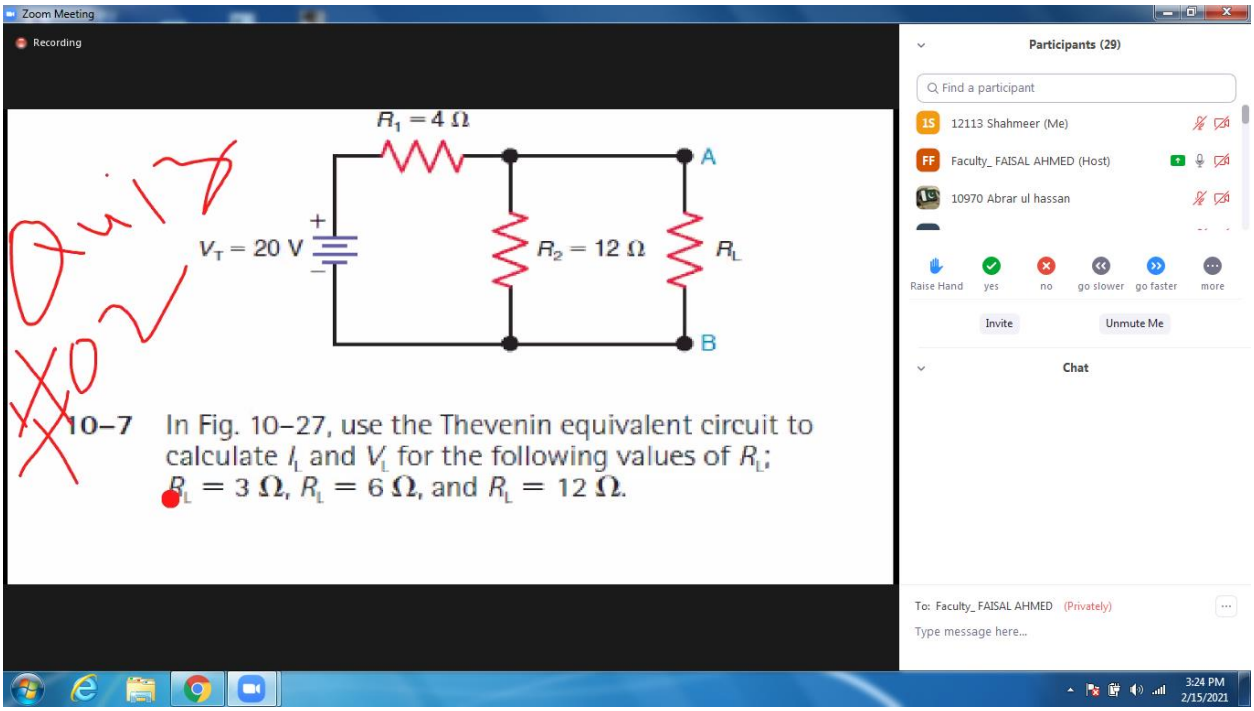
# BE Theory Quiz # 02

***Name: Shahmeer khan.***

***Student Id: 12113.***

***Class ID: 106228.***

***Quiz # 02;***




Solution;

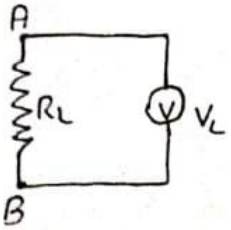
# BE Quiz#02.

Name: Shahmeer Khan Student ID: 12115. Class ID: 10622B.

Solution:

∴ Using Thevenin equivalent circuit to calculate $V_L$. where:

- $R_L = 6\Omega$
- $R_2 = 12\Omega$




- ∴ $R_1$ and $R_2$ are in series combination.
- ∴ Voltage drop on $R_1 = V_{R_1} = \frac{4}{16} \times 20$

$$\Rightarrow \boxed{V_{R_1} = 5V}$$

- ∴ Voltage drop on $R_2 = V_{R_2} = \frac{12}{16} \times 20$

$$\Rightarrow \boxed{V_{R_2} = 15V}$$

- ∴ $R_2$ and $R_L$ are in parallel combination.
  ∴ voltage drop on $R_L$ will be equals to voltage drop on $R_2$.
  ∴ $V_{R_2} = V_L$

$$\boxed{V_L = 15V}$$ Ans.