



St. Lawrence High School
A Jesuit Christian Minority Institution



Term : Pre – Test

Solution of Work Sheet – 17

Subject – Physical Science

Class – X

Date – 13.06.20

Chapter – Current Electricity

Topic – Resistance

Choose the correct option for the following questions.

1 × 15 = 15

- If temperature is increased, then the resistivity of a conductor –
 - Increases
 - Decreases
 - Remains same
 - First increases then decreases

Ans: a. Increases
- If temperature is increased, then the conductivity of a conductor –
 - Increases
 - Decreases
 - Remains same
 - First increases then decreases

Ans: b. Decreases
- If temperature is increased, then the resistivity of a semi conductor –
 - Increases
 - Decreases
 - Remains same
 - First increases then decreases

Ans: b. Decreases
- If temperature is increased, then the conductivity of a semi conductor –
 - Increases
 - Decreases
 - Remains same
 - First increases then decreases

Ans: a. increases
- Mercury becomes super conductor bellow –
 - 6.2 K
 - 2.6 K
 - 4.2 K
 - 2.4 K

Ans: c. 4.2 K
- For series combination of resistances –
 - Potential drops across all the resistances are same
 - Current through all the resistances are same
 - Both a. and b. are correct
 - None of these

Ans: b. Current through all the resistances are same

7. For parallel combination of resistances –
- Potential drops across all the resistances are same
 - Current through all the resistances are same
 - Both a. and b. are correct
 - None of these

Ans: a. Potential drops across all the resistances are same

8. For parallel combination of resistances –
- The current through the largest resistance will be lowest
 - The current through the largest resistance will be greatest
 - The current through the smallest resistance will be lowest
 - Current through all the resistances are same

Ans: The current through the largest resistance will be lowest

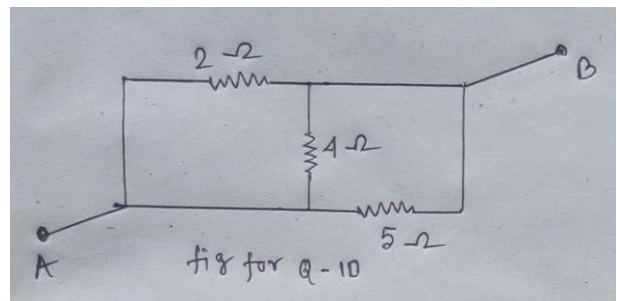
9. For series combination of resistances –
- The potential drop across the largest resistance will be lowest
 - The potential drop across the largest resistance will be greatest
 - The potential drop across the smallest resistance will be greatest
 - potential drop across all the resistances are same

Ans: The potential drop across the largest resistance will be greatest

10. The equivalent resistance of the combination in between point A and B will be –

- 11Ω
- $\frac{20}{19}\Omega$
- $\frac{19}{20}\Omega$
- $\frac{38}{6}\Omega$

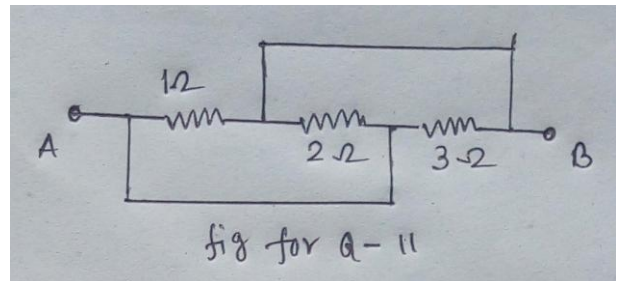
Ans: b. $\frac{20}{19}\Omega$



11. The equivalent resistance of the combination in between point A and B will be –

- 6Ω
- $\frac{6}{11}\Omega$
- $\frac{11}{6}\Omega$
- $\frac{1}{6}\Omega$

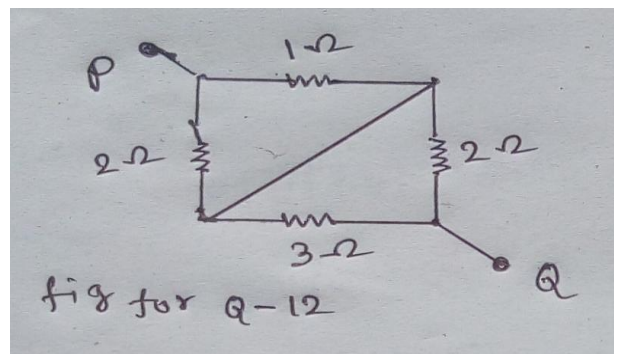
Ans: b. $\frac{6}{11}\Omega$



12. The equivalent resistance of the combination in between point P and Q will be –

- $\frac{8}{15}\Omega$
- $\frac{15}{8}\Omega$
- $\frac{15}{28}\Omega$
- $\frac{28}{15}\Omega$

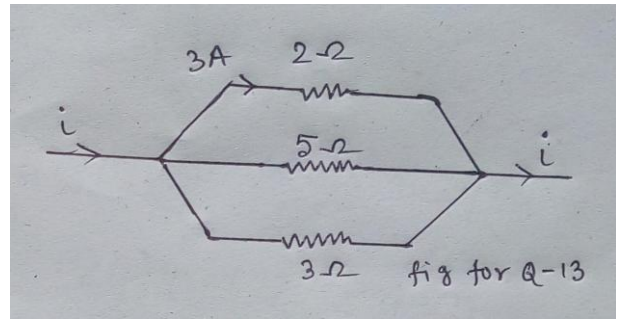
Ans: d. $\frac{28}{15}\Omega$



13. What will be the current through 5Ω and 3Ω resistances?

- a. 1.2 A, 2 A
- b. 1 A, 1.2 A
- c. 3.3 A, 2 A
- d. 2 A, 3.3 A

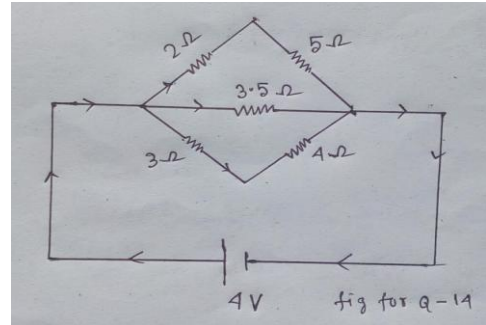
Ans: a. 1.2 A, 2 A



14. What is the main current that is coming out of the cell?

- a. $\frac{1}{7}$ A
- b. $\frac{16}{7}$ A
- c. 7 A
- d. 4 A

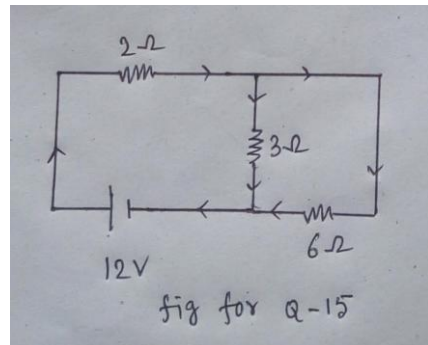
Ans: b. $\frac{16}{7}$ A



15. What will be the potential drop across 2Ω resistance?

- a. 3 volts
- b. 6 volts
- c. 8 volts
- d. 10 volts

Ans: b. 6 volts



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