



Physics

Worksheet 7 : 23/07/2020

Class - X

**CHAPTER 11 : CURRENT ELECTRICITY****Instructions:**

- ✓ Read the chapter in your book - quickly and thoroughly, preferably more than once.
- ✓ Watch the uploaded video classes of this chapter from school's website/You Tube channel. For becoming more clear about the basics, watch more than once, if needed.
- ✓ Contact me in case of any difficulty in understanding.

**(MCQs given in this worksheet are important for all exams)**

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**MCQs****(Solve Yourself)**

- |  |   |
|--|---|
| <p><b>1.</b> Which one is used in three-pin plugs?</p> <ul style="list-style-type: none"><li>a) circuit breaker</li><li>b) switch</li><li>c) fuse</li><li>d) earth wire</li></ul>  | <p><b>3.</b> Which of the following is insulator?</p> <ul style="list-style-type: none"><li>a) human body</li><li>b) soil</li><li>c) glass</li><li>d) iron</li></ul>                |
| <p><b>2.</b> Which of the following is conductor?</p> <ul style="list-style-type: none"><li>a) human body</li><li>b) wood</li><li>c) paper</li><li>d) plastic</li><li>a)</li></ul> | <p><b>4.</b> Which substance has least specific resistance?</p> <ul style="list-style-type: none"><li>b) silver</li><li>c) copper</li><li>d) tungsten</li><li>e) nichrome</li></ul> |

- 5.** If the resistance of a wire is  $5\Omega$  then what will be the conductance?  
 a)  $0.1\Omega^{-1}$   
 b)  $0.2m\Omega^{-1}$   
 c)  $0.2\Omega^{-1}$   
 d)  $4\Omega^{-1}$
- 6.** What is the resistivity of tungsten?  
 a)  $1.7 \times 10^{-8}\Omega m$   
 b)  $1.6 \times 10^{-8}\Omega m$   
 c)  $5.5 \times 10^{-8}\Omega m$   
 d)  $100 \times 10^{-8}\Omega m$
- 7.** Which relation is correct in calculation of electrical energy spent?  
 a)  $W = I^2Rt$   
 b)  $W = IRt$   
 c)  $W = \frac{Vt}{R}$   
 d)  $W = \frac{Vt}{R^2}$
- 8.** On the body of an electric bulb 60W-220v is written. What is the resistance of the bulb?  
 a)  $16.36\Omega$   
 b)  $160\Omega$   
 c)  $280\Omega$   
 d)  $806.67\Omega$
- 9.** The potential difference between two ends of filament of a bulb is 12v and it's resistance is  $4\Omega$ . What is the flow of current?  
 a) 3A  
 b) 4A  
 c) 8A  
 d) 10A
- 10.** How much joule is equal to one-watt hour?  
 a) 3600j  
 b) 3500j  
 c) 3200j  
 d) 3000j
- 11.** Usually which type of filament is used in electrical bulb?  
 a) tungsten  
 b) nichrome  
 c) copper  
 d) aluminum
- 12.** Which one's resistivity is the most?  
 a) nichrome  
 b) copper  
 c) silver  
 d) tungsten
- 13.** What is the relation between the potential difference (V) of the two terminals of a conductor and flow of current (I)?  
 a)  $V = \frac{I}{R}$   
 b)  $I = \frac{R}{V}$   
 c)  $R = \frac{I}{V}$   
 d)  $R = \frac{V}{I}$
- 14.** What will happen to the value of resistance of a conductor when its cross-sectional area is reduced to half?  
 a) increases 2 times  
 b) decreases 2 times  
 c) increases  $\frac{1}{2}$  times  
 d) decreases  $\frac{1}{2}$  times

**15.** When  $50\Omega$  conductor wire is cutting half, what will be resistance of each part?

- a)  $100\Omega$
- b)  $50\Omega$
- c)  $25\Omega$
- d)  $12.5\Omega$

**16.** Which one is a good conductor?

- a) wood
- b) copper
- c) water
- d) rubber

**17.** How many power consumes an electric fan?

- a) (60-70)w
- b) (65-75)w
- c) (70-80)w
- d) (80-90)w

**18.** What will be the conductivity if any conductor is placed in a potential difference of 220v with resistance of  $0.25\Omega$

- a)  $880\Omega^{-1}$
- b) 880A
- c)  $4\Omega^{-1}$
- d) 4A

**19.** What is the conductivity of nichrome?

- a)  $100 \times 10^{-8}(\Omega m)^{-1}$
- b)  $100 \times 10^8(\Omega m)^{-1}$
- c)  $1 \times 10^6(\Omega m)^{-1}$
- d)  $10 \times 10^6(\Omega m)^{-1}$

**20.** At constant temperature if the potential difference of a conductor made twice then what will be the increase of flow of current?

- a)  $\frac{1}{4}$  times
- b)  $\frac{1}{2}$  times
- c) 2 times
- d) 4 times

**21.** If 1 ampere (1A) current flows through a conductor for 1 second (1s) then which one is correct?

- a) 1J
- b)  $1As^{-1}$
- c) 1c
- d) 1v

**22.** Opposite quantity of conductivity is called -

- i. specific resistance
- ii. resistivity
- iii. resistance

Which of the following is correct?

- a) i and ii
- b) i and iii
- c) ii and iii
- d) i, ii and iii

**23.** Resistance of copper will increase when -

- i. temperature is increased
- ii. length is increased
- iii. cross-sectional area is increased

Which one is correct?

- a) i and ii
- b) i and iii
- c) ii and iii
- d) i, ii and ii

**24.** What is the cause of using circuit breaker in a circuit?

- for safety
- for decreasing electric cost
- for increasing voltage
- for increasing electric flow

**25.** If the same value of three bulbs are connected parallel in a circuit -

- each bulb will give same light
- if one bulb is damaged, other bulbs will be serviceable
- potential difference will be one-third of each bulb

Which of the following is correct?

- i and ii
- i and iii
- ii and iii
- i, ii and iii

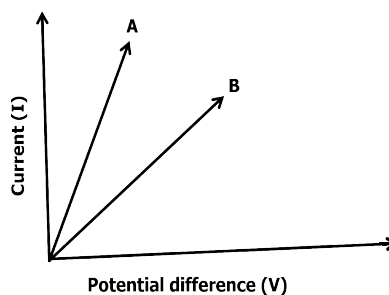
**26.** It is dangerous to stay under any tree during storm and rain since -

- electricity always passes following the shortest path.
- soil and water are electric conductor.
- electricity passes on earth through an object of high position.

Which one of the following is correct?

- i and ii
- i and iii
- ii and iii
- i, ii and iii

**27.**



In case the electric conductor marked above with 'A' and 'B'

- A is a better conductor than B
- B is a better conductor than A
- Resistance of B is greater than that of A

Which of the following is correct?

- i and ii
- ii and iii
- i and iii
- i, ii and iii

**28.** For decoration purpose in wedding ceremony, the circuit used is -

- series circuit
- parallel circuit
- parallel combination circuit

Which one is correct?

- i
- ii
- i and ii
- i, ii and iii

**Follow the stem and answer the question no. 29 and 30.**

In a house daily two rice cooker 484w and two water heater 605w of 220v are used for 5 hours.

**29.** What is the unit consumption per day?

- a) 10.89
- b) 89.10
- c) 11.98
- d) 98.10

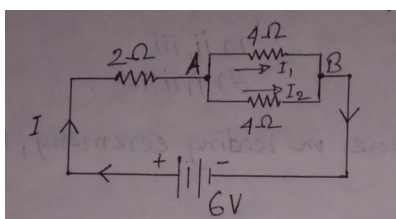
**30.** For the circuit of the stem -

- i. The current flow is 9.9A
- ii. The fuse is suitable of 12A
- iii. Equivalent resistance is  $22.22\Omega$

Which of the following is correct?

- a) i and ii
- b) ii and iii
- c) i and iii
- d) i, ii and iii

**Follow the circuit and answer the questions no. 31 and 32**



**31.** What is the voltage between point A and B?

- a) 2v
- b) 3v
- c) 4v
- d) 6v

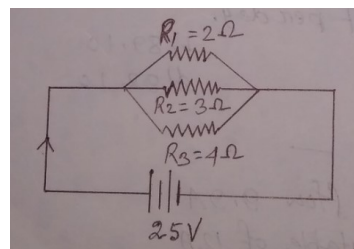
**32.** In case of current flowing in the circuit of above stem -

- i.  $I = I_1 = I_2$
- ii.  $I_1 = I_2$
- iii.  $I > I_2$

Which one is correct?

- a) i and ii
- b) ii and iii
- c) i and iii
- d) i, ii and iii

**Follow the circuit and answer the questions no. 33 and 34**



**33.** What is the equivalent resistance in ohm?

- a) 1.083
- b) 1.83
- c) 1.00
- d) 0.923

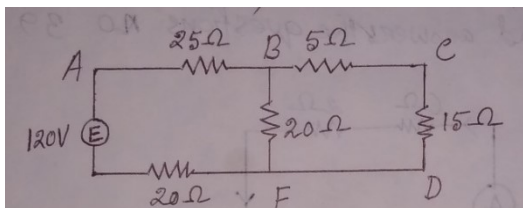
**34.** If all the resistances are connected in series combination then the electric current -

- i. will decreased
- ii. will increased
- iii. will remain unchanged

Which one is correct?

- a) i
- b) ii
- c) iii
- d) i, ii and iii

Follow the circuit carefully and answer the questions no. 35 and 36



**35.** What is the resistance across AF?

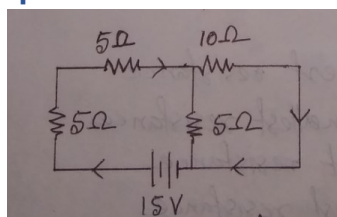
- $40\Omega$
- $35\Omega$
- $30\Omega$
- $25\Omega$

**36.** Calculate the current flowing through

the circuit -

- 0.12A
- 0.20A
- 2.2A
- 2.8A

Follow the circuit carefully and answer the questions no. 37 and 38



**37.** What is the equivalent resistance of the circuit?

- $7.5\Omega$
- $13.33\Omega$
- $17.5\Omega$
- $25\Omega$

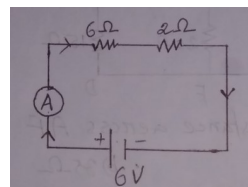
**38.** If  $10\Omega$  resistance is removed from the circuit, then -

- flow of current will be decreased
- equivalent resistance will be increased
- potential difference of the two terminals of each resistance will be equal.

Which one is correct?

- i and ii
- ii and iii
- i and iii
- i, ii and iii

Follow the circuit carefully and answer the questions no. 39 and 40.



**39.** What is the reading of the ammeter in ampere?

- 4
- 3
- 1.33
- 0.75

**40.** If all resistors are connected in parallel combination and then what will be the value of equivalent resistance?

- larger than the largest resistance
- smaller than the smallest resistance
- equal to the largest resistance
- equal to the smallest resistance