Electricity

1. 30 electrons are flowing through a electric wire in a time of 3sec. Then the amount of current flowing through the wire is

a. 1.6×10^{-18}A c. 4.8×10^{-19} A

b. 9×10^{-18}A d. 9×10^{-19} A

2. A current of 0.5A is drawn by a filament of an electric bulb for 10 minutes. The amount of electric charge flowing through the bulb is

a. 400C c. 300C

b. 500C d. 600c

3. Current flows through a wire only when there is _____between the ends of the wire

a. Potential difference c. Work is done in moving a charge

b. Potential difference at one end is more than at the other end

d. All of the above

4. The SI unit of Potential difference is

a. Volt

b. $JA^{-1}s^{-1}$

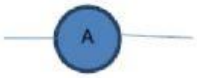
c. JC^{-1}

d. All of the above

5. The symbol used for denoting battery in a circuit is

a. 

c. 

B 

d. 

6. The amount of work done in moving a charge of 2C across two points having a potential difference of 24 V is

a. 50J c. 24 J

b. 48J d. 54J

7. The resistance of the wire when the length of the wire increases two times

a. Becomes 2 times c. Becomes 3 times

b. Becomes 6 times d. Becomes 4 times

8. Resistance of the wire is given by

a. R= V/I c. R= I/V

b. R= IV d. R= I2V

9. The resultant resistance when three resistances 2ohms, 4ohms, 5ohms , when connected in series is

a. 12 ohms c. 11ohms

b. 13 ohms d. 15 ohms

10. Potential difference in a circuit in which components are connected in series

a. Remains the same across each component

b. Gets distributed equally

c. Gets divided across each component

d. Potential difference does not appear

11. The resultant value of resistances each of value r ohms when connected in parallel is x, when these resistances are connected in series the resultant resistance is :

a. nx

b. n^2x

c. x/n

d. x/n^2

12. Electric fuse is connected with:

a. Live wire

b. neutral wire

c. earthing

d. parallel to the line wire

13. To determine the equivalent resistance of two resistors, when connected in series, the correct way of connecting ammeter and voltmeter in the circuit is

a. Both ammeter and voltmeter in series

c. ammeter in parallel and voltmeter in series

b. Both ammeter and voltmeter in parallel

d. ammeter in series and voltmeter in parallel