Exercise MCQs

Sr. No.	Questions	A	B	C	D
1	An electric current in conductors is due to the flow of	positive ions	negative ions	positive charges	✓free electrons
2	What is the voltage across a $6\ \Omega$ resistor when 3 A of current passes through it?	2 V	9 V	✓18 V	36 V
3	What happens to the intensity or the brightness of the lamps connected in series as more and more lamps are added?	Increases	✓decreases	remains the same	cannot be predicted
4	Why should household appliances be connected in parallel with the voltage source?	to increase the resistance of the circuit	to decrease the resistance of the circuit	✓to provide each appliance the same voltage as the power source	to provide each appliance the same current as the power source
5	Electric potential and e. m. f	are the same terms	✓are the different terms	have different units	both (B) and (C)
6	When we double the voltage in a simple electric circuit, we double the	✓current	power	resistance	both (a) and (b)
7	If we double both the current and the voltage in a circuit while keeping its resistance constant, the power	remains unchanged	halves	doubles	✓Quadruples OR become four times
8	What is the power rating of a lamp connected to a 12 V source when it carries 2.5 A?	4.8 W	14.5 W	✓30 W	60 W
9	The combined resistance of two identical resistors, connected in series is $8\ \Omega$. Their combined resistance in a parallel arrangement will be	$2\ \Omega$	✓$4\ \Omega$	$8\ \Omega$	$12\ \Omega$

Additional MCQs

Sr. No.	Questions	A	B	C	D
1	Formula of current is	$I = Qt$	✓$I = \frac{Q}{t}$	$I = \frac{t}{Q}$	All of these
2	SI unit of current is	Coulomb	✓Ampere	Volt	Farad
3	The unit of potential difference is	Joule	Coulomb	Farad	✓Volt
4	Formula of $e.m.f$	$E = \frac{J}{Q}$	$E = \frac{W}{I}$	✓$E = \frac{w}{Q}$	$E = \frac{W}{Q}$
5	The unit of $e.m.f$ in SI system is equal to	J	Jm^{-1}	JS^{-1}	✓JC^{-1} **OR** V(volt)
6	An ideal volt meter has resistance	Very low	✓Very large	Low	Zero
7	Specific resistance of copper is	$1.7 \times 10^{-8}\ \Omega m$	✓$1.69 \times 10^{-8}\ \Omega m$	$100 \times 10^{-8}\ \Omega m$	$3500 \times 10^{-8}\ \Omega m$
8	Specific resistance of silver is	✓$1.7 \times 10^{-8}\ \Omega m$	$1.69 \times 10^{-8}\ \Omega m$	$100 \times 10^{-8}\ \Omega m$	$3500 \times 10^{-8}\ \Omega m$
9	Specific resistance of aluminium is	✓$2.75 \times 10^{-8}\ \Omega m$	$5.25 \times 10^{-8}\ \Omega m$	$9.8 \times 10^{-8}\ \Omega m$	$10.6 \times 10^{-8}\ \Omega m$
10	Unit of resistance is	F(Farad)	C(Coulomb)	✓Ω(Ohm)	V(Volt)
11	When resistances are connected in series, the current passing through them is	Different	Zero	✓Same	None
13	Which one is OHMIC in nature?	Thermister	Filament lamp	✓Fixed resistor	Variable resistor
14	Mathematical form of joule's law	$W = I^2Rt$	✓$W = IR^2t$	$W = I^2R^2t$	$W = IRt$
15	Which one is not true for power?	$P = I^2R$	$P = \frac{QV}{t}$	✓$P = IR$	$P = IV$
16	The unit of electric power is	Ampere	Joule	✓Watt	Volt
17	$1kWh$ is equal to	$3\ MJ$	✓$3.6\ MJ$	$2\ MJ$	$2.6\ MJ$
18	SI unit of electric power is	$1\ W = Js$	✓$1\ W = Js^{-1}$	$1\ W = J^{-1}s^{-1}$	$1\ W = J^{-1}s$
19	Potential of neutral wire	✓$0\ V$	$1\ V$	$100\ V$	$220\ V$
20	An ideal ammeter has resistance	Very low	Very large	Low	✓Zero
21	Two resistances $6\ k\Omega$ and $12k\Omega$ are connected in parallel across a $6\ V$ battery. The potential difference across $6\ k\Omega$ resistance is ___ volts.	2	4	6✓	12
22	A 100 Watt bulb is connected to $250\ V$ supply the current flowing through the bulb is	$0.4\ A$✓	$2.5\ A$	4.8	$14.5\ A$
23	The equivalent resistance of two resistor of $6\ k\Omega$ and $4k\Omega$ are connected in series across $10\ V$ abttery	✓$10\ k\Omega$	$2\ k\Omega$	$\frac{12}{5}\ k\Omega$	$\frac{5}{12}\ k\Omega$