Physics FSC Part 2 Chapter 13 Online MCQ's Test

Sr	Questions	Answers Choice
1	Resistance tolerance of silver band is.	A. 10% B. 6% C. 7% D. 5%
2	The unit of resistance is:	A. Ω B. Ωm C. Ω⁻¹m⁻¹ D. Ωm⁻¹
3	A rheostat can operate as.	A. Amplifier B. Potential divider C. Oscillator D. Transformer
4	The potential difference between the head and tail of an electrical to	A. 600 Volt B. 700 Volt C. 800 Volt D. 900 Volt
5	A certain wire has a resistance R, the resistivity of an other wire of an identical material with the first, except for twice its diameter is.	A. 1/4 R B. 4R C. 2R D. Same as R
6	the current which flows from a point at higher. potential to point at lower potential is called.	A. Electric current B. Conventional current C. Either of these D. None of above
7	Magnetic effect of current is used in.	A. Toaster B. Electric iron C. Electric motor D. D.C. Battery
8	The reciprocal of resistance is called.	A. Capacitance B. Resistance C. Conductance D. Inductance
9	mho -m-1 is the unit of.	A. Resistance B. Resistivity C. Conductance D. Conductivity
10	Thermistor with high - ve temperature coefficient are very accurate for measuring low temperature especially near is.	A. 10 kelvin B. 70 kelvin C. 200 kelvin D. 35 kelvin
11	Potentiometer is used to.	A. Compare emf of two cells B. Detect internal resistance of cell C. Measure P.D. D. All of these
12	A wire uniform cross-section. A length L and resistance R is cut into two equal parts. The resistivity of each part will be:	A. Doubled B. Halved C. Remain the same D. One fourth
13	The resistivity of ----------decrease with the increase in temp	A. Gold B. Silver C. Copper D. Silicon
14	Heat generated by a 40 W bulb in one hour is.	A. 140 J B. 1440 J C. 14400 J D. 144000 J
15	The algebraic sum of potential change in a closed circuit is zero.	A. Kirchhoff's 1st rule B. Kirchhoff 2nd rule C. Krichoff's 3rd rule D. Kirchhoff 4th

		rule
16	A rheostat can be used as variable resistor as well as a----------	A. Potential divider B. Current divider C. Wheat stone bridge D. Power divider
17	The heat produced by passage of current.	A. H=I²Rt B. H=IR2T C. H=I/Rt D. H=I²/Rt
18	Drift velocity of electrons is.	A. 10⁻¹ m/s B. 10⁻² m/s C. 10⁻³ m/s D. 10³ m/s
19	In gas the charge carriers are:	A. Electrons B. Ions C. Both a & b D. None of above
20	What is the resistance of carbon resistor which has band brown black brown.	A. 100 Ohm B. 1000 Ohm C. 10 Ohm D. 1.0 Ohm
21	During electrolysis process, density of $CuSO_4$ solution	A. Remains constant B. Decreased C. Increased D. None of these
22	Unit (S.I) of temperature coefficient of resistivity of a material is	A. K B. K⁻¹ C. ^oC D. K⁻²
23	The thermistors convert changes of temperature into.	A. Light energy B. Electric voltage C. Heat D. Sound
24	Heat energy is converted into electrical energy.	A. Solar cells B. thermocouples C. Electric generators D. None of above
25	The unit of conductivity is:	A. Ohm⁻³m⁻¹ B. Ohm m⁻¹ C. Both a and b D. Ohm m⁻¹
26	Ampere second stands for the unit of.	A. Charge B. emf C. energy D. Power
27	When a pot difference of 4 volt is applied across resistance, 10 J of energy is converted Find charge flows	A. 0.20 C B. 2.5 C C. 5.0 C D. 10.0 C
28	e.m.f is the conversion of ---------- energy into electrical energy	A. Chemical B. Solar C. Light D. None of these
29	5 A of current flows through a conductor in 2 minutes, charge in the wire is.	A. 500 C B. 600 C C. 400 C D. 10 C
30	The color code of "Green"	A. 8 B. 3 C. 5 D. 7
31	One ohm is equal to	A. VC-1 B. CV-1 C. AC-1 D. VA⁻¹
32	A substance having the negative temperature co efficient of resistivity out of the following is.	A. Carbon B. Iron C. Tungsten D. Gold
		A. Nature of resistor

33	Colour codes are used to calculate the.	A. Nature of resistor B. Numerical value of resistance C. Potential difference D. Current
34	The product of resistance and conductance is	A. 1 B. Resistivity C. Conductance D. Zero
35	The drift velocity is of order:	A. 10⁻¹³m/s B. 10³ m/s C. 10⁻³m/s D. 10⁻⁴m/s
36	The value of maximum output power is?	A. E/4R B. E²/4R C. E/4R² D. Non of above
37	The fraction change in resistance per Kelvin is known as:	A. Temperature coefficient of Resistance B. Coefficient of voltage of change C. Thermal expansion D. All of the above
38	For non-ohmic devices, the graph between V and I is	A. Not a straight line B. A straight line C. A curve D. All of above
39	The head produced by the passage of current through a resistor is.	A. H= I²Rt B. H = IR²t C. H = 1/Rt D. H = I²/Rt
40	Heat sensitive resistors are called.	A. resistors B. Capacitor C. Thermistors D. Inductors
41	The free electrons experience force.	A. In direction of -E B. In direction of E C. Both A and B D. All of the above
42	The current through a resistance of 100 Ohm when connecting across a source of 220 V is.	A. 22000 A B. 22 A C. 2.2 A D. 0.45 A
43	If the resistance of 500 Ohm have fourth band of silver colour then its upper maximum resistance will be.	A. 600 Ohm B. 550 Ohm C. 450 Ohm D. 400 Ohm
44	Calculate current in 2 2R /4Ω resistor.	A. 1 A B. 2R /4Ω C. R/3Ω D. 2R /3Ω
45	The SI unit of resistivity is.	A. Ohm m-2 B. Ohm m-1 C. Ohm m D. Ohm
46	If there is no fourth band, tolerance is shows as	D. 10%
47	Two resistance of 2 Ohm each are connected in parallel combination equivalent resistance will be.	A. 4 Ohm B. 2 Ohm C. 1 Ohm D. 8 Ohm
48	Specific resistance of a material depends upon.	A. Length B. Area C. Temperature D. Both A and B
49	Resistance tolerance for gold colour is.	A. 50% B. 30% C. 20% D. 5%
50	Three resistors of resistance R each are combined in various ways, Which of the following cannot be obtained?	A. 3 RΩ B. 2R /4Ω C. R/3Ω D. 2R /3Ω
		A. 1.6 x 10-19 A

51	106 electrons are moving through a wire per second the current developed is:	B. 1 A C. 1.6 x 10-13A D. 106 A
52	Terminal potential difference is greater than emf of the cell when	A. Circuit is open B. Circuit is closed C. small battery is charged by bigger battery D. None of these
53	When a wire of length 'l' and resistance R is cut into two equal parts then resistivity of each part.	A. is doubled B. Remains the same C. Is halved D. Is one fourth
54	The current flowing through each resistor of equal resistance in parallel combination is.	A. Same B. Different C. Zero D. Infinite
55	Thermosouple is an arrangement of two different metals:	A. Two convert heat energy into electrical energy B. To produce more heat C. To convert heat energy into chemical energy D. To convert electrical energy into heat energy
56	Magnetic effect of current is used	A. To detect a current B. To measure a current C. In electric motor D. All of above
57	If a charge Q flows through any cross section of the conductor in time t, the current I is	A. I=Qt B. I= Q/t C. I= Q*t D. I= Q-t
58	An ideal current source shall have resistance	A. Zero B. Finite but not zero C. Infinite D. Depend upon requirement
59	Semiconductor diodes are called:	A. Ohmic B. non ohmic C. Both a & b D. none of above
60	When a wire is stretched and its radius becomes r/2, then its resistance will be	A. 16 R B. 4 R C. 2R D. 0
61	The powers of two electric bulbs are 100w and 200w. Which are connected to power supply of 220 V. The ratio of resistance of their filament will be:	A. 1:2 B. 2:1 C. 1:3 D. 4:3
62	The conventional current is due to the flow of	A. Atoms and molecules B. Positive charge C. Negative charge D. Bot (b) and (c)
63	In carbon resistors, then value of Blue colour is.	A. 6 B. 7 C. 8 D. 9
64	The Kirchhoff 1st rule is manifestation of:	A. Law of conservation of mass B. Law of Conservation of charge C. Law of conservation of energy D. None of above
65	The unit of temperature co efficient of resistivity is.	A. Ohm -m B. K-1 C. K D. Ohm
66	If 1 x 10^{7} electrons passes through a conductor in 1.0 micro second , then the current is.	A. 2 A B. 1.6 A C. 2.6 x 10⁻⁶ A

		D. 1.6 x 10⁻⁶ A
67	A battery move a charge of 40 C around a circuit at constant rate in 20 Sec. The current will be.	A. 2 A B. 0.5 A C. 80 A D. 800 A
68	Kirchhoff's first rule is the manifestation of the law of conservation of.	A. Mass B. Charge C. Energy D. Momentum
69	For ohmic device the graph between V and I is.	A. A straight line B. Curve C. Hyperbola D. Parabola
70	Which one of the following bulbs has the least resistance.	A. 100 W B. 200 W C. 500 W D. 1000 W
71	By increasing the temperature of conductor, the flow rate of charges.	A. Increase B. Remains constant C. Decreases D. Changes exponentially
72	Seven resistances are connected as shown in the figures . THe equivalent resistance between A and B is:	A. 3Ω B. 4Ω C. 4.5Ω D. 5Ω
73	Electric power:	A. Vx1 B. V²x1 C. V/1 D. V/1²
74	Resistivity at a given temperature depends upon.	A. Area of cross section B. Length C. Nature of material of conductor D. Both length and area
75	Tolerance of "Gold" band.	A. ±10% B. ±5% C. ±15% D. ±20%
76	The resistivity of two wires isρ_1 andρ_2 which are connected in series. If there dimentions are same then the equivalent resistivity of the combination will be:	A. (ρ₁ + ρ₂) B. 1/ρ₁+ 1/ρ₂ C. ρ₁+ρ₂ /2 D. ρ_{1/} ρ₂
77	The condition for the wheatstone bridge to be balanced is given by	D. None of above
78	The vessel containing the tow electrodes and liquid to known as.	A. Chemical cell B. Volt cell C. Volta cell D. Volta meter
79	Kirchhoff's voltage rule is a way of stating conservation of.	A. Mass B. Charge C. Energy D. Momentum

80	A charged conductor has charge on its.	A. Inner surface B. Outer surface C. Middle surface D. Surrounding space