1)	What is a thermistor?		
A)	It is a resistor whose resistance is not affected by temperature	B)	It is a resistor whose resistance varies significantly with temperature
C)	It is a resistor which becomes a super conductor at extremely low temperature	D)	It is a resistor which becomes an insulator at extremely low temperatures
Correct Answer:	B		
2)	A variable resistor with only two terminals is known as _____		
A)	Rheostat	B)	Wiper
C)	Ammeter	D)	None of these
Correct Answer:	A		
3)	Which of the following is the SI unit for electric potential?		
A)	Ohm	B)	Ampere
C)	Joule	D)	Volt
Correct Answer:	D		
4)	What is a multimeter?		
A)	It can measure resistance and current	B)	It can measure voltage and resistance
C)	It can measure resistance and voltage	D)	It can measure resistance, voltage and current
Correct Answer:	D		
5)	In which of the following do you find a wiper?		
A)	Potentiometer	B)	Rheostat
C)	Both A and B	D)	None of these
Correct Answer:	C		
6)	Which of the following can be used to measure current?		
A)	Ammeter	B)	Tangent galvanometer
C)	Multimeter	D)	All the above
Correct Answer:	D		
7)	What is 270^0 equal to?		
A)	π/3	B)	2π/3
C)	3π/2	D)	4π/3
Correct Answer:	C		
8)	How many primary volts need to be applied to a transformer with 0.2 turns ratio in order to obtain a secondary voltage of 40 V?		
A)	8 V	B)	200 V
C)	20 V	D)	None of these
Correct Answer:	B		
9)	If we want to step down 160 V to 20 V, what should be the turns ratio?		
A)	8	B)	0.125
C)	1.25	D)	None of these
Correct Answer:	B		

10)	If the secondary voltage is one-third of the primary voltage in a transformer, what is the secondary current?		
A)	Same as the primary current	B)	One-third of the primary current
C)	Three times the primary current	D)	Nine times the primary current
Correct Answer:	C		
11)	A transformer has a turns ratio of 4. What is the secondary voltage when 10 volts are applied to the primary and the coupling coefficient is 0.85?		
A)	40 V	B)	34 V
C)	2.5 V	D)	None of these
Correct Answer:	B		
12)	There are 5 equal value resistors connected in series in a circuit. The total power in the circuit is 14 W. what is the power dissipated by each of the resistors?		
A)	70 W	B)	2.8 W
C)	14 W	D)	None of these
Correct Answer:	B		
13)	There are three resistors with unequal values connected in series. Which of them will have the most voltage drop?		
A)	The one closest to the voltage source	B)	The one which has the highest resistance
C)	The one with lowest resistance	D)	All of them will have the same voltage drop
Correct Answer:	B		
14)	A 12.2 Ω and a 3.05 Ω resistors are in series. What is the voltage across 3.05 Ω resistor if the voltage drop in the 12.2 Ω resistor is 10 V?		
A)	2.5 V	B)	10 V
C)	6.95 V	D)	None of these
Correct Answer:	A		
15)	What is the source voltage if 4 equal value resistors connected in series have a voltage drop of 8 volts across each?		
A)	8 V	B)	2 V
C)	32 V	D)	None of these
Correct Answer:	C		
16)	What is the efficiency, in percentage, when a power supply produces 66 W output using 75 W input?		
A)	75%	B)	66%
C)	88%	D)	None of these
Correct Answer:	C		
17)	What is the ampere rating of a power supply which can provide 3.6 amperes for 480 minutes?		
A)	8 Ah	B)	28.8 Ah
C)	2.88 Ah	D)	1728 Ah
Correct Answer:	B		
18)	What is the total consumption if you used 200 W of power for 80 hours?		
A)	16 kWh	B)	16000 Wh
C)	0.016 MWh	D)	All the above
Correct Answer:	D		

19)	What is the current when a 16 kΩ resistor dissipates 2.5 W?		
A)	12.5 mA	B)	12.5 µA
C)	12.5 A	D)	None of these
Correct Answer:	A		
20)	What is the power dissipated by a 64 Ω is connected to a 4 volt battery?		
A)	250 W	B)	250 mW
C)	62.5 mW	D)	None of these
Correct Answer:	A		
21)	What is the amount of energy used in six minutes when a 30 Ω resistor is connected to a 21 V source?		
A)	147 Wh	B)	14.7 Wh
C)	0.147 Wh	D)	None of these
Correct Answer:	D		
22)	What is the power with 120 mA current and 6 V?		
A)	720 mW	B)	0.72 W
C)	720,000 µW	D)	All the above
Correct Answer:	D		
23)	Which of the following is a SI unit for power?		
A)	Joule per second	B)	Watt
C)	Both A and B	D)	None of these
Correct Answer:	C		
24)	What is the internal resistance of a 10,000 ohm/volt voltmeter set on its 7 V range?		
A)	10,000	B)	70,000
C)	1428.57	D)	None of these
Correct Answer:	B		
25)	Two 40 kΩ resistors are in series and one of them is connected in parallel with a 10 kΩ resistor. What is the total resistance?		
A)	48 Ω	B)	90 kΩ
C)	48 kΩ	D)	None of these
Correct Answer:	C		
26)	What is the current flowing through a circuit with three 5 Ω resistors connected in series and a 10 Ω resistor connected in parallel to one of the 5 Ω resistors and the voltage source is 48V?		
A)	3.6 A	B)	3.6 kA
C)	1.92 A	D)	None of these
Correct Answer:	A		
27)	Which of the following is true with respect to a string resistor ladder network?		
A)	A resistor string ladder network is a string of many, often equally dimensioned, resistors connected between two reference voltages	B)	The resistors act as voltage dividers between the referenced voltages
C)	Both A and B	D)	None of these
Correct Answer:	C		

28)	Which of the following rules is applied when a Wheatstone bridge is used to measure an unknown electrical resistance?		
A)	Kirchhoff's first rule	B)	Kirchhoff's second rule
C)	Both A and B	D)	None of these
Correct Answer:	C		
29)	Three inductors with values of 8 μH, 18 μH, 24 μH are connected in series. What is the total inductance?		
A)	50 H	B)	50 μH
C)	50 mH	D)	None of these
Correct Answer:	B		
30)	What happens to the amount of energy stored in the electromagnetic field when the current through an inductor is doubled?		
A)	It doubles	B)	It becomes four times
C)	It becomes half	D)	It becomes one-fourth
Correct Answer:	B		
31)	What is the value of magnetic (permeability) constant?		
A)	$4\pi\times10^{-7}$ H·m^{-1}	B)	$4\pi\times10^{-6}$ H·m^{-1}
C)	$3\pi\times10^{-7}$ H·m^{-1}	D)	$3\pi\times10^{-6}$ H·m^{-1}
Correct Answer:	A		
32)	Which of the following devices can be used to convert energy into linear motion?		
A)	Solenoid	B)	Solar cell
C)	Potentiometer	D)	All the above
Correct Answer:	A		
33)	Which of the following statements is true?		
A)	The inductance is proportional to the square of the number of turns	B)	The inductance decreases directly as the permeability of the core material increases
C)	Both A and B	D)	None of these
Correct Answer:	A		
34)	What is the SI unit for capacitance?		
A)	Henry	B)	Farad
C)	Volt	D)	Watt
Correct Answer:	B		
35)	Which of the following is used as the dielectric in electrolytic capacitors?		
A)	Niobium	B)	Tantalum
C)	Aluminum	D)	All the above
Correct Answer:	D		
36)	What is dielectric breakdown?		
A)	It is rapid acquisition of infinite amount of resistance by a conductor, thereby becoming a perfect insulator	B)	It is a rapid reduction in the resistance of an electrical insulator, thereby becoming electrically conductive
C)	It is when a material becomes half conductor and half insulator	D)	None of these
Correct Answer:	B		

37)	When an electric current increases the charge of one plate of the capacitor, what happens to the charge on the other plate?		
A)	It decreases by the same amount	B)	It remains the same
C)	It decreases by the same amount	D)	It becomes zero
Correct Answer:	C		
38)	Which of the following has the highest relative permittivity at room temperature?		
A)	Teflon	B)	Polypropylene
C)	Paper	D)	Vacuum
Correct Answer:	C		
39)	What happens to the capacitance when the plate area of a capacitor decreases?		
A)	It increases	B)	It does not change
C)	It decreases	D)	It approaches infinity
Correct Answer:	C		
40)	A simple three-phase generator consists of three conductive loops separated by ____		
A)	60^0	B)	120^0
C)	180^0	D)	360^0
Correct Answer:	B		
41)	The armature in an electrical machine is _____		
A)	Always a stator	B)	Always a rotor
C)	Either a stator or rotor	D)	Always a stator in a motor and rotor in a generator
Correct Answer:	C		
42)	What is the frequency of an alternator which makes 3000 revolutions per minute and has 2 poles?		
A)	100 Hz	B)	50 Hz
C)	750 Hz	D)	None of these
Correct Answer:	B		
43)	What is the current flowing through a 5.5 MΩ connected to a 220 V source?		
A)	40 A	B)	40 MA
C)	40 μA	D)	None of these
Correct Answer:	C		
44)	What is the resistance required to draw 4.8 mA from a 6 V source?		
A)	1250 mΩ	B)	1250 Ω
C)	125 Ω	D)	None of these
Correct Answer:	B		
45)	What is the voltage of the source when 5 A current is measured through 2.2 Ω resistor?		
A)	1.1 V	B)	11 V
C)	0.44V	D)	None of these
Correct Answer:	B		

46)	What should the increase in the voltage from the present 12 V, if you want to increase the amount of current in a resistor from 120 mA to 240 mA?		
A)	12 V	B)	24 V
C)	36 V	D)	None of these
Correct Answer:	A		
47)	Given that the magnetic flux in 0.2 m^2 is 800 μWb, what is the flux density?		
A)	160 μT	B)	4000 T
C)	4000 μT	D)	None of these
Correct Answer:	C		
48)	What is the SI unit for magnetic reluctance?		
A)	Ω	B)	At
C)	At/m	D)	At/Wb
Correct Answer:	D		
49)	What is the inverse of reluctance?		
A)	Resistance	B)	Inductance
C)	Permeance	D)	None of these
Correct Answer:	C		
50)	The value of coupling coefficient is always between		
A)	0 and 1	B)	-1 and 1
C)	-1 and 0	D)	None of these
Correct Answer:	A		
51)	What is skin effect?		
A)	It is the phenomenon where the electric current flows away from the skin of the conductor	B)	It is the phenomenon where the electric current flows mainly at the skin of the conductor
C)	It is the phenomenon where the electric current flows outside the skin of the insulator	D)	None of these
Correct Answer:	B		
52)	What is the mutual inductance when the coupling coefficient is 0.4 and the individual inductances of two coils are 20 H and 45 H, respectively?		
A)	360 H	B)	12 H
C)	26 H	D)	None of these
Correct Answer:	B		
53)	What happens when the south pole of a bar magnet is brought close to the north pole of a horse shoe magnet?		
A)	They attract each other	B)	They repel each other
C)	The north pole is pushed northwards and the south pole is pushed southwards	D)	Both lose their magnetic properties
Correct Answer:	A		

54)	Retentivity is also known as _____		
A)	Retained reluctance	B)	Residual magnetism
C)	Residual inductance	D)	None of these
Correct Answer:	B		
55)	Which of the following use the principle of hysteresis?		
A)	Thermostat	B)	Latching relay
C)	Both A and B	D)	None of these
Correct Answer:	C		
56)	What is the induced current when a 275 Ω resistor is connected to a coil an induced voltage of 220 V?		
A)	0.8 A	B)	8 A
C)	60.5 A	D)	None of these
Correct Answer:	A		
57)	What happens to the induced voltage when a stationary conductor is inside a stationary magnetic field?		
A)	It increases	B)	It decreases
C)	It doubles	D)	It will be zero
Correct Answer:	D		
58)	Lenz's law defines _____		
A)	The magnitude of induced current in relation to the effect which produces it	B)	The direction of induced current in relation to the effect which produces it
C)	The direction and the magnitude of induced current in relation to the effect which produces it	D)	None of these
Correct Answer:	B		
59)	What is the magnetomotive force when 5 A of current flows through a wire with 25 turns?		
A)	5 At	B)	125 mAt
C)	125 At	D)	None of these
Correct Answer:	C		
60)	What happens to magnetomotive force when reluctance increases?		
A)	It increases	B)	It decreases
C)	It remains the same	D)	It kills the entire magnetic flux
Correct Answer:	A		
61)	Which of the following is true with a solid state relay?		
A)	They use semiconductor devices such as thyristors	B)	They are faster than electro-mechanical relays
C)	They do not have any moving parts	D)	All the above
Correct Answer:	D		
62)	If two conductors carrying current in opposite direction are lying parallel and close to each other, then they _____		
A)	Repel each other	B)	Attract each other
C)	Neither repel or attract each other	D)	Cancel each other's current
Correct Answer:	A		

63)	The the ability of a ferromagnetic material to withstand an external magnetic field without becoming demagnetized is called _____		
A)	Unreluctance	B)	Coercivity
C)	Stubbornity	D)	None of these
Correct Answer:	B		
64)	Which of the following leads to demagnetizing a ferromagnetic material?		
A)	Washing with strong soap water	B)	Heating beyond its Curie temperature
C)	Encasing inside a rayon cove	D)	None of these
Correct Answer:	B		
65)	What is the disadvantage of DC transmission?		
A)	Transmission losses are very high	B)	Step up and step down of DC voltages are difficult
C)	They can be used only in very high altitude	D)	None of these
Correct Answer:	B		
66)	Which of the following is used to in ungrounded 3-phase grounding systems to limit the arcing currents during ground faults?		
A)	Rogowski coil	B)	Peterson coil
C)	Both A and B	D)	None of these
Correct Answer:	B		
67)	Which of the following can be used for reducing the skin effect?		
A)	Use of a hollow pipe with a conducting wall	B)	Use of Litz wire
C)	Both A and B	D)	None of these
Correct Answer:	C		
68)	What is the effect of mechanical stress on a piezoelectric crystal?		
A)	It deforms the crystal	B)	It reverses the magnetic poles of the crystal
C)	It leads to electrical polarization in the crystal	D)	None of these
Correct Answer:	C		
69)	A semiconductor material, at absolute zero degrees temperature, acts as which of the following?		
A)	A perfect conductor	B)	A perfect insulator
C)	A perfect conductor or insulator depending on the atmospheric pressure	D)	None of these
Correct Answer:	B		
70)	What happens to the reverse saturation current of a diode when the temperature increases?		
A)	It increases	B)	It decreases
C)	It becomes zero	D)	It remains the same
Correct Answer:	A		
71)	The secondary load resistance of transformer with 50 turns in the primary winding and 20 turns in the secondary winding is 1200Ω. What is the reflective resistance?		
A)	750 Ω	B)	7.5 kΩ
C)	7500 kΩ	D)	None of these
Correct Answer:	B		

72)	When 12 percent of the total flux generated in the primary does not pass through the secondary in a particular transformer, what is the coefficient of coupling for the transformer?		
A)	12%	B)	112%
C)	88%	D)	None of these
Correct Answer:	C		
73)	What is the output power to the load when the input power to the primary of a transformer is 140 W and 4.8 W is lost to the winding resistance?		
A)	144.8 W	B)	135.2 W
C)	4.8 W	D)	None of these
Correct Answer:	B		
74)	The phenomenon where there is an increase in voltage occurring at the receiving end of a long transmission line, above the voltage at the sending end is called _____		
A)	Ferranti effect	B)	Litz effect
C)	Faraday phenomenon	D)	Maxwell effect
Correct Answer:	A		
75)	Which of the following is an advantage of bundle conductors as compared to single conductor?		
A)	Reduce skin effect	B)	Lower level of reactance
C)	Reduce line losses due to faster cooling	D)	All the above
Correct Answer:	D		
76)	Manik received Rs. 28,520 as a repayment of loan (principal and interest) after 4 years of having made the loan. If the rate of interest is 6% and the interest is calculated on a simple interest basis, what was the principal amount loaned by Manik?		
A)	Rs. 25,000	B)	Rs. 23,452
C)	Rs. 23,000	D)	None of these
Correct Answer:	C		
77)	Which of the following cities do not have a functional metro rail system in India?		
A)	New Delhi	B)	Kolkata
C)	Hyderabad	D)	Bangalore
Correct Answer:	C		
78)	ALU, in the context of computers, stands for		
A)	Automatic logic unit	B)	Arithmetic logic unit
C)	Amplified logic unification	D)	Algebraic logical unit
Correct Answer:	B		
79)	If one were to look for the famous "Rock Garden" in India, where should one go?		
A)	New Delhi	B)	Mumbai
C)	Chandigarh	D)	Kolkata
Correct Answer:	C		
80)	Three–fourth of two–fifth of a number is equal to 48. What is 165% of that number?		
A)	280	B)	264
C)	310	D)	None of these
Correct Answer:	B		

81)	Identify the odd one out?		
A)	Professor C N Rao	B)	Sachin Tendulkar
C)	Manmohan Singh	D)	Atal Bihari Vajpayee
Correct Answer:	C		
82)	Where was the "Green Revolution" in India started?		
A)	Punjab	B)	Uttar Pradesh
C)	Maharashtra	D)	Andhra Pradesh
Correct Answer:	A		
83)	The term "Orange Revolution" is used in the context of which country?		
A)	India	B)	China
C)	Russia	D)	Ukraine
Correct Answer:	D		
84)	Who amongst these was the first woman prime minister of a country?		
A)	India Gandhi	B)	Sirimavo Bandaranaike
C)	Margaret Thatcher	D)	Hilary Clinton
Correct Answer:	B		
85)	Consider a rectangular solid of a given volume, i.e., the base is rectangular. The height of the solid is increased by 50% while one of the sides of the base is reduced by 20%; the other side is left unaltered. How much will this case the volume of the solid to change by?		
A)	Increase by 120%	B)	Decrease by 120%
C)	Remain unchanged	D)	Cannot be determined
Correct Answer:	A		
86)	In 1962, India was engaged in a war with		
A)	Pakistan	B)	Burma
C)	China	D)	Bangladesh
Correct Answer:	C		
87)	Who founded the famous Mughal dynasty in India?		
A)	Babar	B)	Humayun
C)	Akbar	D)	None of them
Correct Answer:	A		
88)	The national song of India is		
A)	First two verses of Jana Gana Mana	B)	First two verses of Sare Jahan Se Accha
C)	First two verses of Vande Mataram	D)	None of these
Correct Answer:	C		
89)	In a computer, the ALU stands for		
A)	Arithmetic Logic Unit	B)	Arithmetic Link Unit
C)	Analog Logic Unit	D)	None of these
Correct Answer:	A		

90)	The sum of the first 100 numbers is		
A)	5050	B)	5000
C)	10000	D)	7843
Correct Answer:	A		
91)	When was the Preamble to the India Constitution last amended?		
A)	2013	B)	1976
C)	1982	D)	1991
Correct Answer:	B		
92)	A bag contains 5 golden and 7 blue balls. One ball is drawn at random – it is found to be golden; after noting the colour of the ball, it is not put back in to the bag. Another ball is now drawn at random. What is the probability that the second ball drawn is golden?		
A)	(5/12)	B)	(4/11)
C)	(1/2)	D)	(6/11)
Correct Answer:	B		
93)	Currently, Hyderabad is the capital of		
A)	Andhra Pradesh	B)	Telengana
C)	Both Andhra Pradesh and Telengana	D)	Neither Andhra Pradesh nor Telengana
Correct Answer:	C		
94)	Which of the following is a correct statement?		
A)	1 metre = 10 decimetres	B)	1 metre = 100 centimetres
C)	1 metre = 1000 millimetres	D)	All of the above
Correct Answer:	D		
95)	The cube root of the square of 729 is		
A)	729	B)	81
C)	8681	D)	None of these
Correct Answer:	B		
96)	Consider the following equation: $((11 * 12) + (96 \div 4)) = X^2 - 100$. Given this, X =		
A)	256	B)	16
C)	14	D)	17
Correct Answer:	B		
97)	Who amongst the following cricketers has the distinction of having batted on all 5 days of a cricket test match?		
A)	Sunil Gavaskar	B)	Geoffrey Boycott
C)	Ravi Shastri	D)	Vivian Richards
Correct Answer:	C		
98)	The diagonal of the floor of a rectangular store room is 7.5 feet. The shorter side of the store room is 4.5 feet. How much is the longer side of the store room?		
A)	5.25 feet	B)	13.5 feet
C)	6 feet	D)	37 feet
Correct Answer:	C		

99)	The classical dance form of Kerala is		
A)	Kathakali	B)	Bhangra
C)	Kuchipudi	D)	Odissi
Correct Answer:	A		
100)	A man starts from point A to get to point B. The road makes the man travel 3 kilometres due north first, then 8 kilometres miles due east and further 3 kilometres due north to reach point B. If the man could have gone "as the crow flies", how much less of a distance would he have to travel?		
A)	11 kilometres	B)	4 kilometres
C)	8 kilometres	D)	6 kilometres
Correct Answer:	B		