

Physics ICS Part 2 Online MCQ's Test

Sr	Questions	Answers Choice
1	The magnetic field is uniform and stronger	A. Outside the solenoid B. Inside the solenoid C. At the central part of the solenoid D. None of these
2	What is difference is isotopes	A. Number of protons B. Number of neutrons C. Number of electrons D. Charge number
3	When a motor is over loaded then the magnitude of back emf.	A. Increases B. Decreases C. Remain constant D. Zero
4	The converses of annihilation of matter is:	A. Photoelectric effect B. Relativistic effect C. Pair production D. Compton effect
5	$X_L =$	A. $2\pi fL$ B. $1/2\pi fL$ C. $2\pi fL$ D. $fL/2\pi$
6	A perfect absorber must also be perfect	A. Cavity B. Sources of radiation C. Radiator D. None of these
7	The internal resistance of a capacitor is called:	A. Impedance B. Resistance C. Reactance D. Conductance
8	Electron vibrating 94,000 times each second will produce radio waves of frequency.	A. 94 Hz B. 940 HZ C. 94 Hz D. 490 Hz
9	The sensitivity of galvanometer is given by	A. CAN/B B. C/BAN C. BAN/C D. $BNCA$
10	The torque in the coil can be increased by increasing:	A. No. of turns B. Current and magnetic field C. Area of coil D. All of the above
11	Reflecting mirrors in laser is used to	A. Further stimulation B. For producing more energetic lasers C. Both (a) and (b) D. None of these
12	If we make magnetic field stronger the value of induced current is.	A. Decreased B. Increased C. Vanishes D. Remain constant
13	The device in which induced emf is statically induced emf is:	A. Transforms B. AC generator C. Elevator D. Dynamo
14	A voltmeter is always connected in	A. Parallel B. Series C. Perpendicular D. Straight line
15	In three phase voltage across any two lines is about.	A. 220 V B. 230 V C. 400 V D. 430 V

16	The SI unit of resistivity is.	A. Ohm m ⁻² B. Ohm m ⁻¹ C. Ohm m D. Ohm
17	The winding of the electromagnet in motor are usually called.	A. Magnetic coils B. Field coils C. Electric coils D. electric o electric coils
18	The typical nuclei are less than:	A. 10^{-16} m B. 10^{-14} m C. 10^{-12} m D. 10^{-10} m
19	Compton's effect is associated with	A. gamma rays B. Beta rays C. X rays D. Positive rays
20	Laser is a device which can produce:	A. Intense beam of light B. Coherent beam of light C. Monochromatic beam of light D. All of the above
21	In photovoltaic cell, current is directly proportional to.	A. Wavelength of light B. Intensity of light C. Energy D. Frequency of light
22	In purely resistive A.C circuit, instantaneous value of voltage and current:	A. Current lags behind voltage B. Current leads voltage by $\pi/2$ C. Both are in Phase D. Voltage leads current by $\pi/2$
23	The amount of energy equal to 1.6×10^{-18} J is called.	A. One volt B. One milli volt C. One electron volt D. One mega electron volt
24	split rings are used in	A. A.C. generator B. A.C. motor C. Transformer D. D.C. motor
25	When a very high energy modeules such as γ radiation interact with matter, the phenomenon arising will be.	A. Photoelectric effect B. Compton effect C. Pair production D. Annihilation of matter
26	A rheostat can operate as.	A. Amplifier B. Potential divider C. Oscillator D. Transformer
27	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
28	The SI unit of E is NC ⁻¹ and that of B is Na ⁻¹ m ⁻¹ then the unit of E/B is.	A. ms ⁻² B. ms C. ms ⁻¹ D. m ⁻¹ s ⁻¹
29	Electron volt is unit of:	A. Chemical energy B. Potential energy C. Nuclear energy D. heat energy
30	Which one of the following is not affected by electric or magnetic field.	A. Beta rays B. Gama ryas C. Alpha rays D. Electron
31	When motor is just started, back emf is almost.	A. Maximum B. Zero C. Minimum D. Infinite
32	$X_c =$	A. $1/2\pi fC$ B. $2\pi fC$ C. $2\pi/fC$ D. $fC/2\pi$
33	The motional emf depends upon the	A. Length of conductor B. Speed of conductor C. Strength of magnet

		<p>C. Strength of magnet</p> <p>D. All of these</p>
34	The p-n junction in which p side is connected to +ve and n-side is -ve the junction is said to be:	<p>A. Neutral</p> <p>B. Forward biased</p> <p>C. Reversed biased</p> <p>D. None of above</p>
35	The energy of photon is given by	<p>A. $mv^2/2$</p> <p>B. hf</p> <p>C. $Va e$</p> <p>D. $mac^{sup>1</sup>}$</p>
36	Magnetic effect of current is used	<p>A. To detect a current</p> <p>B. To measure a current</p> <p>C. In electric motor</p> <p>D. All of above</p>
37	The number of lines per unit area passing perpendicular through an area is called	<p>A. Flux</p> <p>B. Electric intensity</p> <p>C. Both (a) , (b)</p> <p>D. None of these</p>
38	The electrical intensity is equal to:	<p>A. $-\Delta r/\Delta v$</p> <p>B. $\Delta v/\Delta r$</p> <p>C. $\Delta v/\Delta v$</p> <p>D. $-\Delta v/\Delta r$</p>
39	To convert a galvanometer into a volt meter a high resistance is connected.	<p>A. In series</p> <p>B. In parallel</p> <p>C. In perpendicular</p> <p>D. Along tangent</p>
40	Total flux through a closed surface depends on.	<p>A. Shape of surface</p> <p>B. Medium only</p> <p>C. Charge enclosed only</p> <p>D. Charge and Medium</p>
41	A material which is insulator at 0 K and conduct at room temperature is.	<p>A. Silver</p> <p>B. Lead</p> <p>C. Germanium</p> <p>D. Polythene</p>
42	The emission of electrons from metal surface when exposed to light is called:	<p>A. Compton effect</p> <p>B. Pair production</p> <p>C. Photoelectric effect</p> <p>D. None of above</p>
43	Commutator was invented in	<p>A. 1834</p> <p>B. 1820</p> <p>C. 1840</p> <p>D. 1835</p>
44	In the Bohr's model of the hydrogen atom, the lowest orbit corresponds to:	<p>A. Infinite energy</p> <p>B. Maximum energy</p> <p>C. Minimum energy</p> <p>D. Zero energy</p>
45	Two down and one up quarks make	<p>A. Proton</p> <p>B. Neutron</p> <p>C. photon</p> <p>D. Positron</p>
46	Impedance is denoted by:	<p>A. $A \&nbsp;$</p> <p>B. Z</p> <p>C. P</p> <p>D. Q</p>
47	The semi conductor diode has the property of	<p>A. Two way conduction</p> <p>B. Zero conduction</p> <p>C. One way conduction</p> <p>D. Amplification</p>
48	To get N-Type the Ge is doped with	<p>A. Aluminium</p> <p>B. Arsenic</p> <p>C. Boron</p> <p>D. Indium</p>
49	The special theory of relativity based on.	<p>A. One postulate</p> <p>B. Two postulates</p> <p>C. Three postulates</p> <p>D. Four postulates</p>
50	Main reason for world wide use of A.C. is	<p>A. It is cheaper</p> <p>B. Transmitted</p> <p>C. Both a and b</p> <p>D. Reaches in short time</p>
		<p>A. Plastics</p> <p>B. Metals</p>

51	Transistors are made from	B. Metals C. Insulator D. Doped semi conductors
52	Anti particle of electron is	A. Proton B. Photon C. Neutron D. Positron
53	During each cycle A.C. voltage reaches a peak value.	A. Once B. Twice C. Thrice D. Four time
54	When an electron in an atom goes from a lower to higher orbit its:	A. K.E increases , P.E decreases B. K.E increases , P.E increases C. K.E decreases , P.E increases D. K.E decreases , P.E decreases
55	In a transistor, collector current is controlled by:	A. Collector voltage B. Base current C. Collector resistance D. All of the above
56	The minimum frequency needed to emit an electron form metal surface is called:	A. Work function B. Threshold frequency C. Quanta frequency D. All of above
57	The unit of magnetic induction B is	A. Coulomb B. Ampere C. Coulomb/ampere D. Weber/m ²
58	The velocity of electron moving is 1st orbit of hydrogen atom is:	A. $2.09 \times 10^6 \text{ ms}^{-1}$ B. $2.18 \times 10^6 \text{ ms}^{-1}$ C. $2.19 \times 10^6 \text{ ms}^{-1}$ D. $3.18 \times 10^6 \text{ ms}^{-1}$
59	The average gap for Germanium at 0K is	A. 1.12 ev B. 0.02 ev C. 6.72 ev D. 7.2 ev
60	Weber is the unit of	A. Magnetic flux B. Permeability C. magnetic force D. None of above
61	Life time of metastable states is	A. 10^{-6} sec or more B. 10^{-3} sec or more C. 10^{-5} sec or more D. None of these
62	The relative permittivity of air is	A. 79.5 B. 1.006 C. 1.06 D. 1.0006
63	Recentaly a complex crystalline structure known as yttrium barium copper oxide (Yba ₂ Cu ₃ O ₃) have reported to become super conductor at	A. 163 K B. 169 K C. 200 K D. 100 K
64	Truth table of logic function.	A. Summarize its output values only B. Tabulates all its input conditions only C. Display all its input and output possibility D. Is not base on logic algebra
65	The electrons in one coulomb change is equal to.	A. 1.6×10^{-19} B. 2.25×10^{-19} C. 6.25×10^{-18} D. 6.25×10^{-19}
66	NIBA =	A. $c\theta$ B. θ/c C. c^2/θ D. c^2/θ
67	If the length and number of turns of a solenoid are doubled strength of magnetic field with.	A. Be doubled B. Become half C. Not change D. Be four time
68	The unit of Magnetic flux is called.	A. weber B. weber/m ² C. NM ⁻¹ A ⁻¹ D. None of above

69	Half life of Uranium -239 is	A. 26.5 minutes B. 24.5 minutes C. 25.5 minutes D. 23.5 minutes
70	Production of x rays is reverse process of	A. Photo electric effect B. Compton effect C. Anihilation D. Pair production
71	At resonance frequency, the impedance of RLC series circuit is.	A. Maximum B. Minimum C. Zero D. Infinite
72	In AC system we generate sine wave form because:	A. It can be easily draw B. It produces least disturbance in electrical circuits C. It is nature standard D. Other waves cannot be produced easily
73	Galvanometer is sensitive when C/BAN is	A. zero B. Large C. small D. Negative
74	If the potential difference across two plates of capacitor is doubled, then energy stored in it will be.	A. Two times B. Eight times C. Four times D. Remain same
75	Helium-Neon laser discharge tube contains neon	A. 82% B. 15% C. 25% D. 85%
76	Grid in cathode ray oscilloscope controls.	A. Number of electron B. Temperature of filament C. Frequency of electron D. Energy of electrons
77	In a transistor, collector current is controlled by:	A. Collector voltage B. Base current C. Collector resistance D. All of the above
78	Lenz's law deals with	A. Magnitude of emf B. Direction emf C. Direction of induced current D. Resistance
79	The conductors having the conductivity of the order of	
80	Which one belongs to lepton's group	A. Electron B. Muons C. Neutrons D. All of these
81	The Balmer series is obtained when all the transition of electrons terminate on	A. 1 st orbit B. 2 nd orbit C. 3 rd orbit D. 4 th orbit
82	When meta l is heated sufficiently electrons are given off by the metal. This phenomenon is known as.	A. Photoelectric effect B. Piezo electric effect C. Thermionic emission D. Secondary emission
83	1 kg mass will be equivalent to energy.	A. 9×10^8 J B. 9×10^{12} J C. 9×10^{16} J D. 9×10^{19} J
84	The binding energy per nucleon is maximum for	A. Helium B. Iron C. Potassium D. Radium
85	The substance which atom cooperates with each other in such a way so as to exhibit a strong magnetic field is called.	A. Ferromagnetic B. Paramagnetic C. Diamagnetic D. Non magnetic
86	If the following particle have the same energy, which particle has the shortest wave length.	A. alpha particle B. Neutron C. Beta particle D. Proton
87	There is no charge in A and Z of anv radioactive element by the emission of.	A. Alpha particle B. Beta particle C. Gamma ray

		<p>C. Gama particle</p> <p>D. X- rays</p>
88	The number of neutron present in a nucleus in a given by	<p>A. $N = A + Z$</p> <p>B. $N = A - z$</p> <p>C. $N = Z - A$</p> <p>D. $N = A \times Z$</p>
89	Question Image	D. None of the above
90	The half life of radioactive elements depends upon	<p>A. Temperature</p> <p>B. Nature of element</p> <p>C. Amount of the radioactive substance</p> <p>D. Pressure</p>
91	Minority carriers in P-Types , substances are.	<p>A. Electrons</p> <p>B. Protons</p> <p>C. Holes</p> <p>D. Neutrons</p>
92	Thermosouple is an arrangement of two different metals:	<p>A. Two convert heat energy into electrical energy</p> <p>B. To produce more heat</p> <p>C. To convert heat energy into chemical energy</p> <p>D. To convert electrical energy into heat energy</p>
93	Marie Curie and Pierre Curie discovered.	<p>A. Uranium</p> <p>B. Uranium and Radium</p> <p>C. Polonium and radium</p> <p>D. Radium</p>
94	The rest mass x ray photon is	<p>A. Infinite</p> <p>B. Zero</p> <p>C. 1.67×10^{-17} kg</p> <p>D. All of the above</p>
95	Presence of dielectric between two charges always.	<p>A. Reduces the electric force</p> <p>B. Enhance the electric force</p> <p>C. Does not effect electric force</p> <p>D. Double the electric force</p>
96	Output resistance of an op amp is	<p>A. High</p> <p>B. Low</p> <p>C. Zero</p> <p>D. Equal to input resistance</p>
97	The fraction change in resistance per Kelvin is known as:	<p>A. Temperature coefficient of Resistance</p> <p>B. Coefficient of voltage of change</p> <p>C. Thermal expansion</p> <p>D. All of the above</p>
98	The stopping potential for a certain metal is 10 volts. Thus work function for the cathode is.	<p>A. 10 J</p> <p>B. 1.6×10^{-18} J</p> <p>C. 1.6×10^{-19} J</p> <p>D. 1.6×10^{-30} J</p>
99	The uncertainty principle was given by	<p>A. De-Broglie</p> <p>B. Heisenberg</p> <p>C. Einstein</p> <p>D. Max Planck</p>
100	In according with Bohr's theory the K.E of the electron is equal to:	<p>A. $\frac{ke^2}{2r}$</p> <p>B. $\frac{Ze^2}{r}$</p> <p>C. $\frac{Ze^2}{r^2}$</p> <p>D. $\frac{Ze^2}{2r^2}$</p>
101	Photodiode is used for:	<p>A. Detection of current</p> <p>B. Detection of heat</p> <p>C. Detection of light</p> <p>D. Both a & b</p>
102	The first theory about the structure of an atom was introduced by	<p>A. Neil Bohr</p> <p>B. Einstein</p> <p>C. Compton</p> <p>D. Rutherford</p>
103	A pentavalent impurity in Si	<p>A. a free electron and a free hole</p> <p>B. a free hole</p> <p>C. a free electron</p> <p>D. No free particle</p>
104	Greater concentration of impurity is added in.	<p>A. Base</p> <p>B. Emitter</p> <p>C. Collector</p> <p>D. LED</p>
105	The moderator used in a nuclear reactor	<p>A. Sodium</p> <p>B. Uranium</p> <p>C. Graphite</p> <p>D. Cadmium</p>

106	When charge particle enter perpendicular to magnetic field, the path followed by it is:	A. A helix B. A circle C. Straight line D. Ellipes
107	A pair of quark and anti quark makes a.	A. Meason B. harden C. Lapton D. Baryon
108	One ohm is equal to	A. VC-1 B. CV-1 C. AC-1 D. $VA⁻¹$
109	The circuit which compares the two voltages is.	A. LDR B. Sensor C. Comparator D. Logic gate
110	The temperature of core of nuclear reactor is:	A. 1100°C B. 1200°C C. 1300°C D. 1400°C
111	Due to polarization, electric field E.	A. Increase B. Decrease C. First increases then decreases D. Remain same
112	The electric field in some region of of space is uniform in magnitude and direction. Which one of the following five statements best describes the volume charge density (ρ) , in this region of space?	A. $\rho = 0$ B. ρ decreases linearly in the direction of the electric field C. ρ increases linearly in the direction of the electric field D. ρ has a uniform value throughout the region E. ρ
113	After curie temperature.	A. Ferromagnetic B. Paramagnetic C. Magnetic D. Diamagnetic
114	Which of the following is one of the spectral series of atomic hydrogen?	A. Brockett series B. Balmer series C. P fund series D. All of above
115	Electromagnetic induction is exactly according to law of:	A. Momentum B. Charge C. Energy D. Mass
116	An in cudutor may store energy in	A. Its magnetic field B. Its coil C. Its electric field D. A neighboring circuit
117	The magnetic force is simply a	A. Reflecting force B. Deflecting force C. Restoring force D. Gravitational force
118	Vrms =	A. $0.7V₀$ B. $0.07V₀$ C. $0.007V₀$ D. $0.75V₀$
119	Write the SI unit of magnetic flux.	A. Tesla B. Weber C. Weber m-2 D. Tesla m2
120	Self induction does not depend on	A. Number of turns of the coil B. Area of cross section of the core C. Nature of material of the core D. Current through inductor
121	A current carrying conductor experience maximum magnetic force in a uniform magnetic field when it is placed.	A. Perpendicular to field B. Parallel to field C. At an angle of 60° to the field D. None of these

122	The force which is responsible for the breaking up of the radioactive element is.	A. Weak nuclear force B. Strong nuclear force C. Electromagnetic force D. Gravitational force
123	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
124	If 10 A current passes through 100 mH inductor, then energy stored is.	A. 100 J B. 5 J C. 20 J D. Zero
125	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
126	In A.C circuit of inductor which one is true	A. Voltage leads current by phase angle $\pi/2$ B. Voltage lags current by $\pi/2$ C. Current leads voltage by $\pi/2$ D. Both remain in phase
127	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
128	When a PN-Junction is reverse biased the depletion region is.	A. Widened B. Narrowed C. Normal D. None of these
129	Potentiometer is used to.	A. Compare emf of two cells B. Detect internal resistance of cell C. Measure P.D. D. All of these
130	Particles equal or greater in mass than of protons are called.	A. Baryons B. Leptons C. Mesons D. Quarks
131	Light emitting diodes are made from semiconductors.	A. Silicon B. Germanium C. Carbon D. Gallium arsenide
132	The e/m of a neutron is	A. Less than electron B. The same as electron C. Zero D. Greater than electron
133	Electric flux is a:	A. Scalar quantity B. Vector quantity C. Variable quantity D. None of these
134	S.I unit of strength of electric field is	A. J/C B. C/V C. V/C D. N/C
135	If the length of solenoid is doubled but N same, B inside the solenoid becomes.	A. Half B. Doubled C. One fourth D. Four times
136	By increasing the temperature of conductor, the flow rate of charges.	A. Increase B. Remains constant C. Decreases D. Changes exponentially
137	The longest wavelength of Paschen series is.	A. 656 nm B. 1094 nm C. 1875 nm D. 2000 nm
138	The highest value reached by the voltage or current in one cycle is called.	A. Peak to peak value B. Peak value C. Instantaneous value D. Root mean square value
139	If current flowing through a solenoid becomes four times, then magnetic field inside becomes.	A. two times B. three times C. four times D. Half

140	An electron in H -atom is excited from ground state $n=4$, How many spectral lines are possible in this case.	A. 6 B. 5 C. 4 D. 3
141	The radioactive decay obeys the law	
142	The resistance between the inverting (-) and non inverting inputs is called Input resistance and is the order of.	A. Ohms B. Kilo Ohms C. Mega Ohms D. Thounds Ohms
143	SI unit of henry which is.	A. VSA-1 B. VS-1 A C. VS-1A-1 D. VSA
144	The jerks in D.C. motor are created by the use of.	A. Armature B. Commutators C. Split rings D. Source of emf
145	If there is no fourth band, tolerance is shows as	D. 10%
146	Heat generated by a 40 W bulb in one hour is.	A. 140 J B. 1440 J C. 14400 J D. 144000 J
147	The highest value reached by the voltage or current is one cycle is called:	A. Peak to peak value B. Peak value C. Instantaneous value D. Root mean square value
148	Power dissipation is a pure inductive or in a pure capacitance circuit is:	A. 10^6 B. 0 C. 10^0 D. Maximum
149	The principle regarding the dual nature of light was first discovered by	A. Heisenberg B. Compton C. J.J.Thomson D. De-Broglie
150	In CRO, the output waveform of time base generator is	A. Circular B. Square C. Sinusoidal D. Saw-toothed
151	Direct current can not flow through.	A. Inductor B. Resistor C. Transistor D. Capacitor
152	If the frequency of A.C. supplied is doubled then the capacitive reactance becomes.	A. Half B. Two C. Four times D. One fourth
153	When a conductor moves across a magnetic field an emf is set up this emf is called.	A. Variable emf B. Constant emf C. Back emf D. Induced emf
154	Identify the practical application of electrostatic force.	A. Inkjet printer B. x rays C. Laser D. A.C. Generator
155	When nitrogen is bombarded by alpha particles nitrogen nucleus changes into	A. Oxygen B. Carbon C. Barium D. Helium
156	Charge on an atom is:	A. Positive B. Negative C. Neutral D. None of these
157	Pair production occurs only when energy of photon is at least equal in:	A. 1.02keV B. 1.02 eV C. 1.02 MeV D. 1.02 GeV
158	A device which converts low voltage or current to high voltage or current is called.	A. Transformer B. AC generator C. Amplifier D. None of these

		D. Rectifier
159	Depletion region carries.	A. -ve charge B. +ve charge C. Ions D. No charge
160	Which of the following is similar to electron.	A. Beta particle B. Alpha particle C. Neutron D. Proton
161	Natural rubber is an example of:	A. Crystalline solids B. Amorphous solids C. Polymeric solids D. None of above
162	Subatomic particles are divided into groups.	A. Photon B. Laptos C. Hadrons D. All of these
163	The condition for the wheatstone bridge to be balanced is given by	D. None of above
164	The crystalline structure of NaCl is.	A. Cubical B. Hexagonal C. Tri gon al D. Tetragonal
165	Which one is not present in A.C. generator.	A. Armature B. Magnet C. Slip rings D. Commutator
166	The symbol of p-n-p transistor is	
167	In D.C. generator, split rings act as.	A. Capacitor B. Commutator C. Resistor D. Inductor
168	The amount of energy equivalent to 1 a.m.u is	A. 931.5 MeV B. 93.15 MeV C. 9.315 MeV D. 2.224 MeV
169	The reciprocal of resistance is called.	A. Capacitance B. Resistance C. Conductance D. Inductance
170	1 tesla =	A. 1 MA m^{-1} B. 1 NA m^{-1} C. 1 NA m^{-1} D. None of above
171	The Si unit of Mutual inductance is:	A. $\text{VA}^{-1} \text{S}^{-1}$ B. VAS^{-1} C. VSA^{-1} D. ASV^{-1}
172	Photodiode is used for wave nature of.	A. Light B. Thermal radiation C. Radi waves D. Sound waves
173	For rectification we use.	A. Transformer B. Diode C. Choke D. Generator
174	Which one of the following paved the way for modern physics	A. Newtonian mechanics B. Theory of relativity C. Quantum theory D. All of above
175	The colour of light emitted by a LED depends on.	A. It forward biased B. Its reverse biased C. Unbiased D. None of these
176	Antiparticle of electron is.	A. proton B. Photon C. Positron D. Neutron
177	The device which is used as amplifier and works with the negative feedback is	A. Operational amplifier B. P-n-p transistor

		C. n-p-n transistor D. Transistor
178	In modulation, low frequency signal is known as	A. Carrier wave B. fluctuated signal C. Modulated carrier signal D. Modulation signal
179	The magnetic flux will be max, For an angle of:	A. 0° B. 60° C. 90° D. 180°
180	Energy released by conversion of 1 amu is	A. 200 MeV B. 931 MeV C. 233 MeV D. 243 MeV
181	Conversion of A.C into D.C is called:	A. Compton effect B. Rectification C. Amplification D. Pair production
182	Induced emf in A.C. generator can be increased by	A. Decreasing area of coil B. Decreasing magnetic field C. Increasing area of coil D. Slowing down speed of coil
183	The unit of impedance is	A. Farad B. Henry C. Tesla D. Ohm
184	The dimensions of magnetic flux are	A. $M^{1/2} T^{1/2} A^{1/2}$ B. $M L T^{-2} A^{-1}$ C. $M L^2 T^2 A^{-1}$ D. $M L^2 T^{-2} A^{-1}$
185	Mass of meason is	A. Greater then proton B. Less than proton C. Equal to proton D. Equal to neutron
186	The physical quantity related to photon, that does not change in Compton scattering is.	A. Energy B. Speed C. Frequency D. Wavelength
187	The value of Wien's constant:	A. $2.9 \times 10^{-3} \text{ mk}$ B. $2.19 \times 10^{-7} \text{ mk}$ C. $3.18 \times 10^6 \text{ km}^{-1}$ D. $6.21 \times 10^9 \text{ m}^2 \text{ wk}^3$
188	Pair production cann'to take place in vacuum because :	A. Mass in not conserved B. Momentum is not conserved C. Energy is not conserved D. Charge is not conserved
189	Presence of dielectric always.	A. Increase the electrostatic force B. Reduces the electrostatic force C. Do not effect electrostatic force D. Doubles the electrostatic force
190	In chopke coil the resistance X_L an resistance R are:	A. $X_L = R$ B. $X_L \ll R$ C. $X_L \gg R$ D. $X_L = \infty$
191	An electric field cannot deflect	A. X-rays B. α -particles C. β -particles D. None of these
192	The magnitude of motional emf is given by	
193	The mass of protons is:	A. $1.675 \times 10^{-27} \text{ kg}$ B. $1.693 \times 10^{-27} \text{ kg}$ C. $1.673 \times 10^{-31} \text{ kg}$ D. $1.673 \times 10^{-27} \text{ kg}$
		A. Shunt resistance

194	To convert a galvanometer into an ammeter, we connect with it a	B. Low value parallel C. Low value by pass resistor D. All of above
195	Substance which break just after the elastic limit is reached are called as.	A. Ductile substances B. Hard substances C. Britto substances D. Soft substances
196	When platinum is it becomes orange at.	A. 500 ^o C B. 900 ^o C C. 1100 ^o C D. 1300 ^o C
197	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. $I= Q-t$
198	Charge on electron is	A. 1.6×10^{-19} C B. 1.6×10^{19} C C. 1.6×10^{-17} C D. 1.6×10^{17} C
199	Selenium is a	A. Insulator B. Photoconductor C. Conductor D. First insulator then conductor
200	Wave nature of particle was given by:	A. Clemensen B. Louis de Broglie C. Laster H. Germer D. Clinton S. Davisson
201	The building blocks of protons and neutrons are called.	A. Ions B. Electrons C. Positrons D. quarks
202	Magnetic effect of current is used in.	A. Toaster B. Electric iron C. Electric motor D. D.C. Battery
203	In LR circiut which one of the following statements is correct?	A. L and R opposes each other B. R value increases with frequency C. The inductive reactance increases with frequency D. The inductive reactance decreases with frequency
204	Current passing through the coil of galvanometer	A. CO/BAN B. CoN /BA C. NAB/CO D. AN/BCO
205	If the separation between the plates of a capacitor is doubled then its capacitance become.	A. Double B. Half C. One fourth D. Three times
206	Absorbed Dose 'D' is defined as	A. m/E B. E/C C. C/m D. E/m
207	In case of reverse biasing, current is flown due to:	A. Minority charge carriers B. Majority charge carriers C. Electrons D. Protons
208	The radius of 10th orbit in hydrogen atom is.	A. 0.053 nm B. 0.53 nm C. 5.3 nm D. 53 nm
209	Bottom quark carries charge :	A. $2/3 e$ B. $-2/3 e$ C. $+1/3 e$ D. $-1/3 e$
210	Curie is unit of.	A. Conductivity B. Binding energy C. Radioactivity D. Resistivity
211	The unit of Plank's constant 'h' is.	A. JC B. J/C C. JS D. J/S

212	Michael Faraday and Joseph Henry belongs to	A. England and USA B. France and USA C. China and USA D. None of these
213	In the equation if $f_2 >$ then	
214	Mutual induction has a practical role in the performance of the.	A. Radio choke B. Transformers C. A.C. Generator D. D.C. Generator
215	Resistance tolerance of silver band is.	A. 10% B. 6% C. 7% D. 5%
216	Flux through any closed surface is:	A. $\frac{1}{\epsilon} \times$ times the total charge enclosed in it B. $\epsilon \times$ time the total charge enclosed in it C. $\frac{1}{\epsilon} \times$ ties the total charge enclosed in it D. $\epsilon \times$ time the total charge enclosed in it
217	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. $\frac{1}{4} R$ B. $4R$ C. $2R$ D. Same as R
218	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
219	Electrons are	A. Hadrons B. Laptons C. Quarks D. Baryons
220	Resistance of choke is	A. zero B. Large C. Very small D. Infinite
221	In a certain circuit, $I_B = 40 \mu A$, $I_C = 20 \text{ mA}$	A. 450 amp B. 0.45 amp C. 5 m amp D. 500 amp
222	When a charge is projected perpendicular to a uniform magnetic field, tis path is	A. Spiral B. Helix C. Ellipse D. Circular
223	Which one of the following is polymeric solids	A. Glass B. Nylon C. Copper D. Zinc
224	Curie temperature is a point where :	A. Diamagnetism changes to paramagnetism B. Paramagnetism changes to Diamagnetism C. Ferromagnetism changes to paramagnetism D. Paramagnetism changes to Ferromagnetism
225	Radio frequency choke is	A. Iron cored B. Air Cored C. Air as well as iron cored D. None of these
226	Recently superconductor discovered is at temperature.	A. 110K B. 143K C. 16.3K D. 119K
227	For an atom of hydrogen atom the radius of the first orbit is given by:	A. $\frac{h^2}{4\pi^2 m_e k e^2}$ B. $\frac{h^2}{4\pi^2 m_e k e^2}$ C. $\frac{h^2}{4\pi^2 m_e k e^2}$ D. $\frac{h^2}{4\pi^2 m_e k e^2}$
228	If a charge body moved against the electric field it will again	A. Potential energy B. K.E C. Mechanical Energy D. Electric potential energy

229	The radius of hydrogen atom is:	<p>A. 0.53\AA B. 0.053\AA C. 0.53×10^{-9} D. 0.053×10^{-9}</p>
230	One henry is equal to	<p>A. $1 \text{ ohm} \times 1 \text{ sec}$ B. $1 \text{ ohm} \times 1 \text{ hertz}$ C. $1 \text{ ohm} \times 1 \text{ metre}$ D. All of above</p>
231	Coercive force is used to	<p>A. Demagnetize the material B. Magnetize the material C. Extend it D. None of these</p>
232	Energy stored in inductor is.	<p>A. $\frac{1}{2} L I^2$ B. $\frac{1}{2} L I$ C. $\frac{1}{2} L^2 I$ D. $\frac{1}{2} L^2 I^2$</p>
233	The unit of permeability of free space is:	<p>A. T.m/A B. $\text{T.m}^2/\text{A}$ C. T.m/A^2 D. None of these</p>
234	the core of transformer is laminated so reduce.	<p>A. Magnetic loss B. Hysteresis loss C. Eddy current loss D. Electric loss</p>
235	Platinum wire becomes white at a temperature of.	<p>A. 1600°C B. 1300°C C. 1100°C D. 900°C</p>
236	A device that shows the visible path of ionizing particle is called.	<p>A. GM counter B. Solid state detector C. Scalar D. Wilson cloud chamber</p>
237	When the back emf in a current is zero, it draws	<p>A. Zero current B. Maximum current C. Minimum current D. Steady average current</p>
238	The thermistors convert changes of temperature into.	<p>A. Light energy B. Electric voltage C. Heat D. Sound</p>
239	Charge carriers in electrolytes are.	<p>A. Protons B. Electrons C. Holes D. Positive and Negative ions</p>
240	The $\text{eV} =$	<p>A. $1.6 \times 10^{-19} \text{C}$ B. $1.6 \times 10^{-11} \text{J}$ C. $1.6 \times 10^{-19} \text{J}$ D. $1.6 \times 10^{-11} \text{C}$</p>
241	The radio active nuclide ${}^{228}_{86}\text{Ra}$ decays by a series of emissions of three alpha particles and one beta particle. The nuclide X finally formed is:	<p>A. ${}^{220}_{64}\text{X}$ B. ${}^{222}_{86}\text{X}$ C. ${}^{216}_{84}\text{X}$ D. ${}^{215}_{88}\text{X}$</p>
242	OR gate is represented by:	<p>A. $X = A+B$ B. $X=A.B$ C. $X=A+B$ D. $X=A.B$</p>
243	The vector sum of electric force and magnetic force is called:	<p>A. Deflecting force B. Lorentz force C. Newton force D. Faraday's force</p>
244	The SI unit of stress is same as that of.	<p>A. Pressure B. Force C. Momentum D. Work</p>
245	Transformer is used to change	<p>A. Electric power B. Magnetic field C. Alternating voltage D. Phase of A.C.</p>
246	Binding energy per nucleon is maximum for	<p>A. Platinum B. Iron C. Uranium D. Lead</p>

247	B $\frac{2}{2\mu}$ is the expression of.	A. Lenz's law B. Magnetic energy C. Magnetic energy density D. Back emf
248	Shunt resistance is	A. Low resistance B. Zero resistance C. High resistance D. Impedance
249	Automatic function of street light can be done by the use of.	A. Inductor B. Rectifier C. Comparator D. emf
250	In a pure inductive A.C. circuit the current.	A. Lags behind voltage by 90° B. Leads the voltage by 90° C. In phase with voltage D. Leads the voltage by 270°
251	Radius of first Bohr's orbit is.	A. 0.053 nm B. 0.053 mm C. 0.053 micro meter D. 0.053 m
252	Colour codes are used to calculate the.	A. Nature of resistor B. Numerical value of resistance C. Potential difference D. Current
253	The scientist who suggested the presence of neutron was:	A. Bohr B. Rutherford C. Chadwick D. J.J Thomson
254	Nuclear fission chain reaction is controlled by using.	A. Cadmium rods B. Iron rods C. Platinum rods D. Steel rods
255	The dimensions of Plank's constant is same as that of.	A. Energy B. Power C. Acceleration D. Angular momentum
256	SI unit of electric flux is.	A. NmC B. NmC ⁻¹ C. Nm ² C ⁻¹ D. Nm ³ C ⁻²
257	Which is true for both alpha particle and gama rays.	A. They cause ionization in air B. They can be deflected by electric field C. They can be deflected by magnetic field D. The y can penetrate a few millimeters of aluminium
258	Which one of the following is ductile substance.	A. Copper B. Lead C. Wrought iron D. All of them
259	Force per unit charge is called:	A. Gravitational force B. Electric field intensity C. Coulomb's force D. None of these
260	The background radiation to which we are exposed, on the average is.	A. 1 mSv per year B. 2 mSv per year C. 3 mSv per year D. 4 mSv per year
261	The Grid 'G' in cathode ray oscilloscope.	A. Accelerate as well as focus electron beam B. Control no. of electrons beam C. Is at - Ve potential with respect to cathode. D. Both d and b
262	Which diode works at reverse biasing.	A. LED B. Photo voltaic cell C. Photo diode D. Silicon diode
263	A Current flowing towards the reader is denoted by.	A. Cross B. a bracket C. A dot D. Positive sign
264	An A.C. voltmeter reads 220 V, its peak value will be	A. 225 V B. 240 V C. 311.12 V

		D. 300 V
265	A simple device that prevents the direction of current from changing is called.	A. Commutator B. Rotor C. Armature D. Detector
266	For electromagnetic waves, Maxwell generalized	A. Gauss's law for magnetism B. Gauss's law for electricity C. Faraday's law D. Ampere's law
267	Domains are existed in	A. Ferromagnetic materials B. Paramagnetic materials C. Semiconductors D. Diamagnetic materials
268	Commutator was invented by:	A. William B. E. Hall B. William Gates C. William Tell D. William Sturgeon
269	Heat sensitive resistors are called.	A. resistors B. Capacitor C. Thermistors D. Inductors
270	The product of resistance and conductance is	A. 1 B. Resistivity C. Conductance D. Zero
271	One joule is equal to.	A. 1.6×10^{19} eV B. 1.6×10^{-19} eV C. 6.25×10^{18} eV D. 6.25×10^{18} eV
272	The energy equivalent of 1 kg of matter is about:	A. 10^{15} J B. 1 J C. 10^{12} J D. 10^{17} J
273	_____ is correct relation.	A. $IT = 10^{-4} G$ B. $IT = 10^4 G$ C. $IT = 10^2 G$ D. $IT = 10^{-2} G$
274	If both the magnitude of charges and distance between them is doubled, then Coulomb's force will be.	A. Doubled B. Half C. Remain same D. One fourth
275	The direction of induced current is always so as to oppose the change which causes the current is:	A. Faraday's law B. Lenz's law C. Ohm's law D. Kirchhoff's 1st rule
276	The unit of induced emf is	A. Ampere B. Volt C. Joule/coulomb D. Both (b) and (c)
277	There are different crystal systems. The number of these crystal systems is.	A. 3 B. 4 C. 5 D. 7
278	The velocity of an oscillating charge as it moves to and fro along a wire is.	A. Changing B. Constant C. Infinite D. zero
279	The electric potential at a mid point in an electric dipole is.	A. 0 V B. 0.5 V C. 1 V D. 1.5 V
280	The material whose resistivity becomes zero below a certain temperature	A. Conductors B. Semiconductors C. Superconductors D. Insulators
281	Helium Neon Laser Beam emitted from discharge tube has a colour.	A. Blue B. Green C. Red D. Black
282	Terminal potential difference is greater than emf of the cell when	A. Circuit is open B. Circuit is closed

282	terminal potential difference is greater than emf of the cell when	C. small battery is charged by bigger battery D. None of these
283	A.C. Generator based upon the	A. Lenz's law B. Maxwell's relation C. Faradays law of electromagnet induction D. Mutual induction
284	$X=A+B$ is the mathematical notation for.	A. OR gate B. NOR gate C. NAND gate D. AND gate
285	The impurity in the germanium is usually in the ratio of	A. $1:10^{6/}$ B. $1:10^{4/}$ C. $1:10^{8/}$ D. $1:10^{10/}$
286	If magnetic field is doubled then magnetic energy density becomes.	A. Four times B. Two times C. Three times D. Six times
287	The magnitude of back emf:	A. Increases with sped of motor B. Decreases with speed of motor C. Remains same D. None of above
288	Binding energy per nucleus for uranium is above:	A. 6.7 Mev B. 7.7 Mev C. 6.9 MeV D. 7.9 MeV
289	The first orbit in the hydrogen atom has a radius.	A. 0.53 nm B. 0.053 nm C. 0.0053 nm D. 0.00053 nm
290	If V_{rms} be the root mean square value of emf then its peak to peak value is given by	
291	An inductor of 1 henry inductance has a reactance 500 ohms, then the frequency required is approximately	A. 50 Hz B. 100 Hz C. 80 Hz D. 120 Hz
292	At high frequency, the current through a capacitor is	A. Small B. Infinity C. Zero D. Large
293	Potassium Cathodes in photocell emit electrons for a light.	A. Visible B. Infra red C. Ultra violet D. X rays
294	The capacitance of a capacitor depends upon.	A. Thickness of plates B. Charges on the plates C. Voltage applied D. Geometry of the capacitor
295	Kirchhoff's first rule is the manifestation of the law of conservation of.	A. Mass B. Charge C. Energy D. Momentum
296	The energy of the photon of wavelength 500 nm is.	A. 3.10 eV B. 2.49 eV C. 1.77 eV D. 1.52 eV
297	Two up quarks and one down quarks makes a	A. Proton B. Newton C. Photon D. Meson
298	Two parrallel, metal plates are a distance 8.00 m apart. The electric field between the plates in uniform, Directed toward the right , and has a magnitude of 4.00 N/C. If an ion of charge +2e is released at rest at the left-hand plate. What is its kinetic energy when reaches the right-hand plate?	A. 4 eV B. 64 eV C. 32 eV D. 16 eV
299	A diode characteristic curve is a plot between	A. Current and time B. Voltage and time C. Voltage and current D. Forward voltage and reverse voltage
300	Which pair belongs to hadrons.	A. Protons and Neutrons B. Neutrons and electrons C. Photons and electrons

		D. positrons and electrons
301	The Lenz's law fulfils.	A. Law of conservation of energy B. Law of conservation of charge C. Law of conservation of momentum D. Kirchhoff's law
302	The unit of work function is	A. Electron volt B. Ampere C. Volt cell D. Hz
303	In metal detector, we use.	A. L-C circuit B. R-L circuit C. R-C circuit D. RLC series circuit
304	The critical temperature of Aluminum is.	A. 3.72 K B. 1.18 K C. 7.2 K D. 8.2 K
305	Which one of the following physical quantities change with relativistic speed?	A. Length B. Time C. Mass D. All of above
306	By emitting Beta particle and gama particle simultaneously the nucleolus changes in its charges by	A. N B. N/2 C. N/4 D. 3N/4
307	Electric potential at a distance "r" from "q" is:	A. $V = \frac{q}{4\pi\epsilon_0 r^2}$ B. $V = \frac{1}{4\pi\epsilon_0} \frac{q}{r^2}$ C. $V = \frac{1}{4\pi\epsilon_0} \frac{q}{r}$ D. $V = \frac{1}{4\pi\epsilon_0} \frac{q}{r^2}$
308	The value of e/m is smallest for	A. Proton B. Electron C. Beta particle D. Positron
309	Two parallel wires carrying currents in the opposite direction.	A. Repel each other B. Attract each other C. Have no effect upon each other D. They cancel out their individual magnetic fields.
310	An alternating voltage is given by $20 \sin 157 t$. The frequency of alternating voltage is:	A. 50 Hz B. 25 Hz C. 100 Hz D. 75 Hz
311	The mass of an object will be doubled at speed.	A. $2.6 \times 10^8 \text{ m/s}$ B. $1.6 \times 10^8 \text{ m/s}$ C. $2.6 \times 10^7 \text{ m/s}$ D. $3.6 \times 10^7 \text{ m/s}$
312	Which of the following quantities remain constant in step up transformer?	A. Current B. Voltage C. Power D. Heat
313	Question Image	A. Lenz's law B. Faraday's law C. Ampere's law D. None of these
314	The temperature at which, semiconductor behaves as insulators:	A. 10k B. 0k C. 237k D. None of above
315	the force between two charge is 28 N. If paraffin wax of relative permittivity 2.8 is introduced between the charges as medium, then the force reduces to.	A. 25 N B. 20 N C. 10 N D. 15 N
316	In anihilation emitted photons moves in opposite directions to conserve.	A. Mass B. Charge C. Energy D. Momentum
317	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

318	LDR becomes necessary when op amp is used as a	A. Night switch B. Inverter C. Comparator D. Rectifier
319	When the back emf is zero, it draws.	A. Zero current B. Minimum current C. Maximum current D. Steady current
320	The following gas was identified in the sun using spectroscopy	A. Hydrogen B. Helium C. Carbon D. Nitrogen
321	The sum of electric and magnetic force is called.	A. Maxwell force B. Lorentz force C. Newton's force D. Centripetal force
322	The wave form of alternating voltage is a	A. Cotangent curve B. Cosine curve C. Sine curve D. Tangent curve
323	A semiconductor in its extremely pure form is known as:	A. Intrinsic B. Extrinsic C. Both a and b D. None of above
324	Farad is defined as	A. "Coulomb/Volt B. Ampere /Volt C. Coulomb /Joule D. Volt/Coulomb
325	if time constant in RC series circuit is small, then capacitor is charged or discharged.	A. Slowly B. Rapidly C. At constant rate D. Intermittently
326	Yield stress is another name of	A. Plasticity B. Proportional limit C. Elastic limit D. Both (b) and (c)
327	A capacitor is perfectly insulator for:	A. Direct current B. Alternating current C. Direct as well as alternating current D. None of these
328	By winding the coil around a less magnetic core, self induction.	A. Will increase B. Will decrease C. Remain same D. First increase then decrease
329	The SI unit of magnetic induction 'B' Tesla is equal to.	A. NA-1m-1 B. Nam-1 C. NA-1 m D. Na2m-1
330	The output from a full wave rectifier is	A. An ac voltage B. A dc voltage C. Zero D. A pulsating unidirectional voltage
331	Rectification is the process of converting.	A. D.C. into A.C. B. A.C. in to D.C. C. Low signal to high D. High signal to low
332	The unit of impedance is.	A. Henry B. Hertz C. Ampere D. Ohm
333	The potential difference between the head and tail of an electrical to	A. 600 Volt B. 700 Volt C. 800 Volt D. 900 Volt
334	The X-rays diffraction with crystal was first studied by	A. W.H Bragg B. W.L. Bragg C. Michelson D. None of these
335	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

336	Various types of cancer are treated by	A. Carbon -14 B. Nickel -63 C. Cobalt -60 D. Strontium -90
337	Controlling rods inserted into the reactor are of metal:	A. Aluminium B. Cadmium C. Magnesium D. Copper
338	$e/m =$	A. v/Br B. Br/V C. VB/r D. Vr/B
339	A step up transformer is used 120 V line to provide 240 V. If primary coil has 100 turns the number of turns is secondary is.	A. 50 B. 100 C. 150 D. 200
340	Glass and high steel carbon are example of.	A. Ductile substances B. Brittle substances C. Soft substances D. Hard substances
341	Mutual induction play role in.	A. Generator B. D.C. motor C. Galvanometer D. Transformer
342	The number of electrons in one coulomb charge is equal to	A. 6.2×10^{18} electrons B. Zero electrons C. 1.6×10^{22} electrons D. 6.2×10^{21} electrons
343	The place for storing the nuclear waste is	A. Ocean B. Damping in earth C. Damping in desert D. Bottom of old salt mines
344	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
345	The galvanometer can be made sensitive by making the factor BAN/C	A. Large B. Small C. Constant D. Zero
346	The position has charge which is in magnitude equal to the charge on	A. Electron B. Proton C. β particle D. All
347	Unit of Stephen's constant is	A. $W m K^{-2}$ B. $W m^{-2} K^{-4}$ C. $W m K^{-4}$ D. None
348	The dead time of G.M tube is.	A. 10^{-1} sec B. 10^{-6} sec C. 10^{-4} sec D. 10^{-8} sec
349	The vessel containing the two electrodes and liquid is known as.	A. Chemical cell B. Volt cell C. Volta cell D. Volta meter
350	Energy produced due to fission of uranium atom is:	A. 500MeV B. 200MeV C. 700MeV D. 750MEV
351	One of the applications of electrostatic induction is	A. Laser B. Photocopier C. X ray machine D. Wilson cloud chamber
352	Electric flux is a	A. Vector quantity B. Scalar quantity C. Both (a) and (b) D. None of above

353	In nuclear radiation , track of alpha particle is.	A. Thin B. Discontinuous C. Erratic D. Continuous
354	Laser is a beam of light which is	A. Monochromatic B. Coherent C. Unidirectional D. All of these
355	Capacitance of a capacitor does not depend upon.	A. Distance between plates B. Area of plates C. Electric field between plates D. Medium between plates
356	The slope of q-t curve at any instant of time gives.	A. Voltage B. Current C. Charge D. Both a and b
357	The value of Rydberg constant is:	A. $1.0749 \times 10^7 \text{ m}^{-1}$ B. $1.0974 \times 10^7 \text{ m}^{-1}$ C. $1.974 \times 10^6 \text{ m}^{-1}$ D. $1.0974 \times 10^7 \text{ m}^{-1}$
358	Eintein's Photoelectric equation is $E_k = hf - \phi$ in this equation E_1 , refers to:	A. K.E of al the emitted electrons B. Mean K.E of emitted electrons C. Maximum K.E of emitted electrons D. Minimum K.E of emitted electrons
359	If an electron is prijected in a magnetic field with velocity V, it will experience a force	
360	Which one of the following is crystalline solid.	A. Zirconia B. Glassy solid C. Natural rubber D. Poly strene
361	Number of Isotopes of Neon gas are	A. 2 B. 3 C. 4 D. 1
362	Magnetic flux density is measured in	A. Weber B. Weber/m ² C. Tesla -m D. Gauss
363	Energy of Black body radiation depends upon	A. Nature of surface of body B. Nature of material of body C. Shape and size of body D. Temperature of the body
364	Specific resistance of a material depends upon.	A. Length B. Area C. Temperature D. Both A and B
365	Donor impurities are	A. Germanium, silicon B. Indium, galium C. Antimony, arsenic D. Diamond, carbon
366	When 10 V are applied to an A.C circuit, the current flowing in it is 100 mA. It impedance is.	A. 100 Ohm B. 10 Ohm C. 1000 Ohm D. 1 Ohm
367	The working principle of transformer is.	A. Self induction B. Faraday's law C. Mutual induction D. Electromagnetic induction
368	A dot represents the direction of magnetic field.	A. Out of page B. Into the page C. Tangent to page D. Parallels to page
369	Those elements whose charge number z is greater then _____ are unstable:	A. 80 B. 79 C. 82 D. 83
370	The reverse saturation current in a PN junction diode is only due to:	A. Majority carriers B. Minority carriers C. Acceptor ions D. Donor ions

371	Which of the following does not undergo plastic deformation.	A. Copper B. Wrought iron C. Lead D. Glass
372	The most suitable metal for making permanent magnet is.	A. Iron B. Aluminium C. Steel D. Copper
373	Which series lies in the ultraviolet region.	A. Balmer series B. Bracket series C. Pfund series D. Lyman series
374	The ratio of applied stress to volumetric strain is called:	A. Young modulus B. Shear modulus C. Bulk modulus D. Tensile modulus
375	The heat produced by passage of current.	A. $H = I^2 R t$ B. $H = IR^2 T$ C. $H = I/Rt$ D. $H = I^2 R / t$
376	If the distance between the two charged bodies is halved, the force between them becomes.	A. Double B. Half C. Four times D. One times
377	The current induced can be increased by:	A. Using a stronger magnetic field B. Moving the loop faster C. Replacing the loop by coil of many turns D. All of above
378	Which of the following is typical source of alpha particle.	A. Strontium -94 B. Radon -222 C. Cobalt -60 D. Zinc sulphate
379	When a nucleus emits an alpha particle, its atomic mass decreases by	A. 1 B. 2 C. 3 D. 4
380	Iodine -131 is used for the treatment by	A. Bones B. Eyes C. thyroid glands D. Lungs
381	The A.M. transmission frequencies range from	A. 540 KHz to 1000 KHz B. 540 KHz to 1600 KHz C. 520 KHz TO 1600 KHz D. 520 KHz TO 1400 KHz
382	The electric field lines are closer where the field is	A. Strong B. Weak C. Uniform D. Variable
383	Electric intensity due to an infinite sheet of charge is:	A. $\frac{\sigma}{2\epsilon_0}$ B. $\frac{\sigma}{\epsilon_0}$ C. $\frac{\sigma}{r^2\epsilon_0}$ D. none of these
384	In Helium Neon laser, discharge tube is filled with Neon gas.	A. 10% B. 15% C. 85% D. 90%
385	For ohmic device the graph between V and I is.	A. A straight line B. Curve C. Hyperbola D. Parabola
386	Photons emitted in inner shell transition are.	A. Continuous X-rays B. Discontinuous X rays C. Characteristic X rays D. Energetic X rays
387	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
388	Useful device to measure resistance, current and voltage is an electronic instrument called.	A. Volt meter B. Ammeter C. Ohmmeter D. Digital Multimeter

389	The series in infrared region is:	A. Paschen series B. Bracket series C. Pfund series D. All of above
390	The chargeless region after formation of Pn junction is called:	A. Free region B. Depletion region C. Field region D. U.V region
391	For step down transformer	A. $N_s > N_p$ B. $N_p > N_s$ C. $N_s = N_p$ D. $N_s < N_p$
392	The first spectral lines were discovered in 1885, were	A. Paschen series B. Balmer series C. Pfund series D. Bracket series
393	The critical temperature of mercury is.	A. 1.18 K B. 4.2 K C. 3.72 K D. 7.2 K
394	Energy stored per unit volume inside a solenoid is called as	A. energy density B. Electric flux C. Work D. Volume charge density
395	The device which are required to convert various physical quantities into electric voltage are called.	A. Filters B. Rectifiers C. Amplifiers D. Sensors
396	Insulators have:	A. An empty conduction band B. A full valence band C. A large energy gap D. All of above
397	Balmer Empirical formula explains the electromagnetic radiation of any excited atom in terms of their.	A. Energy B. Mass C. Wave length D. Momentum
398	For inducing emf in a coil the basic requirement is that:	A. Flux should link the coil B. Change in flux should link the coil C. Coil should form a closed loop D. Both (b) and (c) are true
399	Maximum Compton shift is observed at.	A. 30° B. 90° C. 45° D. 180°
400	When the K.E. of photoelectric is zero, the frequency of incident photon is.	A. Less than B. greater than C. Equal to D. Much greater
401	Semiconductor diodes are called:	A. Ohmic B. non ohmic C. Both a & b D. none of above
402	In full wave rectification number of diodes required are equal to.	A. 2 B. 3 C. 4 D. 5
403	In an electronic transition atom cannot emit.	A. Infrared radiations B. Visible radiations C. Ultraviolet radiations D. Gamma radiations
404	Minimum energy needed to escape an electron from metal surface is called:	A. Threshold energy B. Threshold frequency C. Work function D. Work ability
405	The sensitivity of Galvanometer can be increased by:	A. Increasing C/BAN factor B. Decreasing C/BAN factor C. Increasing angle θ D. All of above
406	If a low resistance is connected parallel to a galvanometer then galvanometer is converted.	A. Ammeter B. Voltammeter C. Ohmmeter

		D. Multimeter
407	Question Image	
408	Average value of current and voltage over a complete cycle is.	A. Positive B. Negative C. Zero D. Infinite
409	Heat energy is converted into electrical energy.	A. Solar cells B. thermocouples C. Electric generators D. None of above
410	Both xenon and caesium each have:	A. 41 isotopes B. 36 isotopes C. 43 isotopes D. 33 isotopes
411	At resonance, the behavior of R-L-C series circuit is.	A. Resistive B. Capacitive C. Inductive D. Modulative
412	A charge Q is divided into two parts q and Q-q and separated by a distance R. The force of equilibrium between them will be maximum when:	A. $q=Q/4$ B. $q=Q/2$ C. $q=Q$ D. None of these
413	Electromagnetic induction obeys law of conservation	A. Charge B. Energy C. Momentum D. Mass
414	A 50 mH coil carries a current of 2.0 A, then energy stored in its magnetic field is.	A. 0.1 J B. 10 J C. 100 J D. 1000 J
415	A photon while passing through a magnetic field is deflected towards:	A. North pole B. South pole C. Are ionized D. None of these
416	A sensitive galvanometer is	A. Unstable B. Stable C. Moderate D. Both B and C
417	Force on a charged particle is zero when projected at angle with magnetic field.	A. 0° B. 90° C. 180° D. 270°
418	In Compton effect the photon behaves as a.	A. Wave B. Particle C. Nucleon D. Both a and b
419	When a nucleus emits alpha particle its atomic mass decreases by	A. 1 B. 2 C. 3 D. 4
420	A device used for detection of current is called.	A. Inductor B. Voltmeter C. Capacitor D. Galvanometer
421	The output voltage of a rectifier is.	A. Smooth B. Pulsating C. Alternating D. Periodically direct
422	Magnetism is related to:	A. Stationary charges B. Moving charges C. Stationary & Moving charges D. Law of motion
423	An AVO meter can also be called as.	A. Digital multimeter B. Digital voltmeter C. Digital ammeter D. Digital ohm meter
424	The number of Neutron in $^{238}\text{U}_{92}$ is	A. 92 B. 238 C. 146 D. 330

425	Energy band theory is based upon	A. Hund's Rule B. Heisenberg uncertainty principle C. Bohr's atomic Model D. Wave mechanical model
426	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
427	The concept of direction is purely	A. Relative B. Absolute C. Relative to the motion D. None of these
428	Which consumes small power.	A. Inductor B. Resistor C. Motor D. All of these
429	The electric flux through closed surface depends upon	A. Charge B. Medium C. Geometry D. Charge and Medium
430	The unit of conductivity is:	A. $\text{Ohm}^{-3}\text{m}^{-1}$ B. Ohm m^{-1} C. Both a and b D. Ohm m^{-1}
431	A capacitor stores energy in the form of.	A. Magnetic field B. Heat energy C. Electrical energy D. Mechanical energy
432	Which of the modulus of elasticity is involved in compressing a rod to decrease its length ?	A. Young's modulus B. Bulk modulus C. Modulus of elasticity D. None of these
433	μ_0 (Ampere's constant) has value.	A. $4\pi \times 10^{-7} \text{ WbA}^{-1}\text{m}^{-1}$ B. $4\pi \times 10^{-17} \text{ Wbm}^2$ C. $4\pi \times 10^{-7} \text{ WbA}^{-1}\text{m}^{-1}$ D. $4\pi \times 10^{-27} \text{ Wb/m}^2$
434	Very weak magnetic field produced by brain can be detected by	A. MRI B. CAT scans C. Squid D. CRO
435	The series in visible region is:	A. Balmer series B. Pfund series C. Paschen series D. None of above
436	By modern system of NAVSTAR, the speed any where on the earth can be determined to accuracy about.	A. 20 ms ⁻¹ B. 10 ms ⁻¹ C. 2 cms ⁻¹ D. 2 ms ⁻¹
437	The mutual inductance between two coils depends upon their	A. Size B. Core material C. Size, core material and separation D. Separation
438	Which type of impurity is to be added to a pure semi conductor crystal to provide holes.	A. Monovalent B. Trivalent C. Tetravalent D. Pentavalent
439	When the medium is insulator the electrostatic force between the charges is	A. Decreased B. Zero C. Increased D. None of above
440	A solid having regular arrangement of molecules throughout its structure is called.	A. Amorphous solid B. Polymeric solid C. Crystalline solid D. Glassy solid
441	NAND gate represented by:	A. $X = A \cdot B$ B. $X = A + B$ C. $X = A \cdot B$ D. $X = A + B $
		A. Length B. ...

442	The motional emf developed in a conduction depends upon.	B. Orientation C. Magnetic field D. All of the above
443	A moving charge is surrounded by:	A. 2 Fields B. 3 Fields C. 4 Fields D. None of these
444	A metal rod of 1 m is moving at a speed of 1 ms ⁻¹ in a direction making an angle 30° with 0.5 T magnetic field . The emf produced is.	A. 0.25 N B. 2.5 N C. 0.25 V D. 2.5 V
445	The peak to peak value of alternating voltage is	A. $2V_{\text{rms}}$ B. V_{rms} D. None of these
446	Which of the following basic force is able to provide an attraction between two neutrons:	A. Electrostatic and nuclear b B. Electrostatic and gravitational C. Gravitational and strong nuclear D. Only nuclear force
447	Eddy current is produced when:	A. A metal is kept in varying magnetic field B. A metal is kept in steady magnetic field C. A circular coil is placed in a steady magnetic field D. A current is passed through a circular coil
448	The number of crystal system are	A. Three B. Five C. Seven D. Fifteen
449	Electro encephalon graph is the diagnostic test for the working of.	A. Eye B. Heart C. Brain D. Lungs
450	The emf induced by the motion of a conductor across a magnetic field is called:	A. Motional emf B. Rotational emf C. Induced emf D. All of above
451	In Helium Neon laser, the discharge tube is filled with	A. 80% He, 20% Neon B. 85% He, 15% Neon C. 83% He, 17% Neon D. 90% He, 10% Neon
452	Coulomb's force is:	A. Conservative force B. None conservative force C. Similar to frictional force D. None of the above
453	GM counter uses	A. Alcohol only B. Bromine C. argon D. Neon and bromine
454	1 rad =	A. 0.001Gy B. 0.01Gy C. 0.1Gy D. 1.01Gy
455	Energy needed to produce an electron hole in solid state detector is.	A. 1 to 2 eV B. 3 to 4 eV C. 6 to 7 eV D. 8 to 9 eV
456	The work done in bringing a unit positive charge from infinity to that point in an electric field is called.	A. Potential B. Potential difference C. Absolute potential D. All of these
457	Concept of the electric field lines is introduced by	A. Coulomb B. Faraday C. Einstein D. Joseph henry
458	The potential barrier for silicon is.	A. 0.7 V B. 0.5 V C. 0.3 V D. 0.9 V
459	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. $\frac{1}{2}$ B. $\frac{2}{1}$ C. $\frac{1}{4}$ D. $\frac{4}{1}$

460	The charge on Beta particle is	A. +e B. -e C. -2e D. None of these
461	The number of neutrons in Li are	A. 2 B. 3 C. 4 D. 7
462	For Holography we use	A. X ray B. Laser C. gama rays D. Beta rays
463	The mutual inductance of the coils depends upon.	A. Stiffness of the coils B. Density of coils C. Material of coils D. Geometry of the coils
464	CRO works by deflecting the beam of electron as they pass through	A. Uniform magnetic field B. Uniform electric field between two sets of parallel plates C. Non-uniform magnetic field D. None of these
465	When platinum is heated is become dull red at:	A. 900°C B. 500°C C. 800°C D. 1100°C
466	Circulation of blood is studied by radio isotope.	A. Cobalt -60 B. Phosphorus -32 C. Sodium -24 D. Iodine -131
467	The charge number of Ba is.	A. 197 B. 141 C. 56 D. 85
468	A positron is an anti particle of.	A. Proton B. Electron C. Neutron D. Photon
469	The first atomic reactor was introduced by	A. Currie B. Enrico Fermi C. Newton D. Bohr
470	Young's modulus for water's is	A. Zero B. 1 C. 2 D. 3
471	SI unit of reactance is.	A. Ohm B. Mho C. Farad D. Henry
472	Gauss's law can only be applied to.	A. A curved surface B. A flat surface C. A closed surface D. A surface of any shape
473	In RLC series circuit at resonance the phase difference between capacitor and inductor reactance is.	A. 90° B. 270° C. 0° D. 180°
474	An ammeter is an electrical instrument which is used to measure.	A. Voltage B. Current C. Resistance D. None
475	The conductor experience force, placed in magnetic above:	A. Move towards weaker part of field B. Move towards stronger part of field C. Remains at rest D. Move upwards in space
476	The photon with energy greater than 1.02 MeV can interact with matter as.	A. Photoelectric effect B. Compton effect C. Pair production D. annihilation of matter

477	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
478	In frequency modulation, the amplitude of carrier waves is	A. Increases B. Remains constant C. Decreases D. None of these
479	In 1905, the special theory of relativity was proposed by	A. Einstein B. Bohr C. Maxwell D. De Broglie
480	A proton consists of quarks which are.	A. Two up, one down B. One up, two down C. All up D. All down
481	The natural frequency of L.C circuit is equal to	
482	For which material medium, force between two charged particles is maximum.	A. Ammonia B. Germanium C. Mica D. Teflon
483	Electro magnetic waves emitted from radio antenna are.	A. Stationary B. Longitudinal C. Transvers D. Both a and b
484	The phase angle of a series RLC circuit at resonant frequency is	A. $\frac{1}{2}$ B. σ C. Zero D. $\sigma / 4$
485	Soft magnetic material is	A. Sodium B. Steel C. Iron D. Copper
486	Which one has greater cone of impurity among all:	A. Emitter B. Base C. Collector D. All are pure
487	Which of the following converts electrical energy into mechanical energy.	A. Transformer B. A.C. generator C. D.C. generator D. D.C. motor
488	Concept of electric field lines was given by:	A. Michelson B. Henry C. Michael faraday D. Oersted
489	Torque is produced in a current carrying coil when it is placed in a	A. Magnetic field B. Electric field C. Gravitational field D. Nuclear field
490	The electromagnetic spectrum contains	A. Radio waves B. X-rays C. Microwaves D. All of these
491	The unit of magnetic induction is:	A. Tesla B. Weber C. Weber metre D. NAm^{-1}
492	The value of maximum output power is?	A. $\frac{E}{4R}$ B. $\frac{E^2}{4R}$ C. $\frac{E^2}{4R}$ D. Non of above
493	In A.C. inductor behaves as	A. Capacitor B. Resistor C. Commutator D. Transistor
494	An electron microscope employs which to one of the following particles?	A. Electron have a wave nature B. Electrons can be focused by an electric field C. Electrons can be focused by a magnetic field D. All of the above

A. Wave nature of radiation

495	Compton effect proves.	B. Wave nature of particle C. Dual nature of particle D. Particle nature of radiations
496	The application of mutual induction is a.	A. D.C. motor B. Radio C. Television D. Transformer
497	The force of Neutron due to field of 10^2 N/C is.	A. 1.6×10^{-17} N B. 1.6×10^{-19} N C. Zero D. 1.6×10^{-21} N
498	X- ray diffraction reveals that these are	A. Particle type B. Wave type C. Both wave and particle D. None of above
499	The SI unit of magnetic induction Tesla is equal to	A. N-1 Am B. NA m2 C. NA-1n2 D. NA-1m-1
500	The 1 st Bohr atom in the hydrogen atom has radius	A. 3.56×10^{-10} m B. 0.053×10^{-11} m C. 0.53×10^{-11} m D. 5.30×10^{-11} m
501	mho -m-1 is the unit of.	A. Resistance B. Resistivity C. Conductance D. Conductivity
502	The effective way to increase the sensitivity of moving coil galvanometer is.	A. Increase the area of coil B. Increase the number of turn C. Increase the magnetic field D. Increase the value of constant C
503	The particles equal in mass but greater than proton are.	A. Mesons B. Baryons C. Leptons D. Hadrons
504	Which of the following are not hadrons.	A. Muons B. Mesons C. Positrons D. Neutrons
505	In case of op-amp as an inverting amplifier, $V_+ - V_- = 0$, this is because	A. Open gain loop is very low B. Closed loop gain is very high C. Open loop gain is very high D. Both (a) and (a)
506	If the energy of photon is 10 eV and work function is 5 eV, then the a value of stopping potential will be	A. 50 V B. 2 V C. 5 V D. 15 V
507	The minimum energy required for occurrence of pair production is:	A. 1.022eV B. 1.02keV C. 1.02Me.V D. 1.04MeV
508	The solid with definite M.L are called:	A. Crystalline B. Amorphous C. Polymeric D. None of above
509	The photo copying process is called	A. Xerography B. Inkjet Printer C. Both (a) and (b) D. None of these
510	Which particle has larger range in air.	A. Alpha rays B. Gama rays C. Beta rays D. Neutron
511	the substances in which the atoms do not form magnetic dipoles are called.	A. Diamagnetic B. Para magnetic C. Ferro magnetic D. Crystal
512	The reactance is the ratio of	A. $\frac{V_{rms}}{I_{rms}}$ B. $\frac{V_{rms}}{I_{rms}}$ x I_{rms} C. $\frac{I_{rms}}{V_{rms}}$ D. V_{max} x V_{rms}

513	Power dissipation in A.C circuit is expressed as:	A. $P = I_{\text{rms}} \times V_{\text{rms}} \sin \theta$ B. $I V \cos \theta$ C. $I_{\text{rms}} \times V_{\text{rms}} \cos \theta$ D. $I_{\text{rms}} \times V_{\text{rms}} \sin 2\theta$
514	An ordinary glass gradually softness into a paste like state before it becomes a very viscous liquid which is possible at	A. 900°C B. 600°C C. 800°C D. 100°C
515	The mean value of A.C. in a cycle is.	A. 1 B. 0 C. I_2 D. Nil
516	The unit of R_h is.	A. ms^{-1} B. m C. m^2 D. m^{-1}
517	Energy density in an inductor is.	A. Directly proportional to magnetic field B. Directly proportional to square of magnetic field C. Inversely proportional to magnetic field D. Inversely proportional to square of magnetic field
518	In A.C. generator , when plane of coil is perpendicular to magnetic field, then output of generator is.	A. $N\omega AB$ B. $2\pi f$ C. Maximum D. Zero
519	Which one has the least resistance.	A. Galvanometer B. Ammeter C. Ohm meter D. Volta meter
520	If the distance between two charges is halved and charges are also doubled, then force between them will be.	A. Two time B. Four time C. Eight time D. Sixteen time
521	One joule of energy absorbed per kilogram of a body is	A. Roentgen B. Grey C. Rem D. Curie
522	Albert Einstein got noble prize for service in:	A. Pair production B. Annihilation of matter theory C. Compton effect D. Photoelectric effect
523	The materialization of energy take place in the process of.	A. Photo electric effect B. Compton Effect C. Pair production D. Annihilation of matter
524	An ECG records the _____ between points on human skin generated by electric process in the heart.	A. Heart beat B. Pulse rate C. Pressure D. Voltage
525	The circuit of full wave rectification consist of	A. Three diodes B. Four diodes C. Two diodes D. One diode
526	For computation of electric flux, the surface area should be.	A. Parallel B. Flat C. Curved D. Spherical
527	Max planck received noble prize in:	A. 1927 B. 1932 C. 1918 D. 1914
528	DC generator by William Sturgeon in:	A. 1894 B. 1961 C. 1834 D. 1961
529	Disintegration of photon on striking a nucleus into an electron and positron is known as.	A. Annihilation of matter B. Compton effect C. Pair production D. Photo electric effect
530	EMF is induced due to change in	A. Charge B. Current C. Magnetic field D. Electric field

		<p>C. Magnetic flux</p> <p>D. Electric field</p>
531	The Unit of decay constant.	<p>A. Second</p> <p>B. (second)⁻¹</p> <p>C. m⁻¹</p> <p>D. mk</p>
532	In Wilson cloud chamber, if tracks are thick, straight and continuous, then particle is	<p>A. α-particles</p> <p>B. β-particles</p> <p>C. γ-rays</p> <p>D. All</p>
533	Which is not true for X rays	<p>A. X rays are not deflected by electric field</p> <p>B. X rays are polarized</p> <p>C. X rays consist of electromagnetic waves</p> <p>D. X rays can be diffracted by grating</p>
534	Resistance tolerance for gold colour is.	<p>A. 50%</p> <p>B. 30%</p> <p>C. 20%</p> <p>D. 5%</p>
535	Drift velocity of electrons is.	<p>A. 10^{-1} m/s</p> <p>B. 10^{-2} m/s</p> <p>C. 10^{-3} m/s</p> <p>D. 10^{-3} m/s</p>
536	Hydrogen atom spectrum does not lie in	<p>A. Ultraviolet region</p> <p>B. Visible region</p> <p>C. Infrared region</p> <p>D. X ray region</p>
537	Which component of the transistor has greater contribution of impurity.	<p>A. Base</p> <p>B. Emitter</p> <p>C. Collector</p> <p>D. Emitter and collector</p>
538	If the medium between the charges is not free space then electrostatic force will be	<p>A. Increase</p> <p>B. Decrease</p> <p>C. Remain same</p> <p>D. None of these</p>
539	Metals are good conductors of electricity because they have	<p>A. Large number of bounded electrons</p> <p>B. Small number of electrons</p> <p>C. Large number of free electrons</p> <p>D. Small number of free electrons</p>
540	The mass spectrum of naturally occurring neon shows the most abundant isotope has atomic mass.	<p>A. 19</p> <p>B. 20</p> <p>C. 21</p> <p>D. 22</p>
541	Compton shift is maximum for scattering angle of photon	<p>A. 0°</p> <p>B. 90°</p> <p>C. 180°</p> <p>D. 45°</p>
542	Two opposite point charge of same magnitude separated by distance 2d, electric potential mid way between them is.	<p>A. 1 V</p> <p>B. 2 V</p> <p>C. Zero</p> <p>D. V/2</p>
543	In A.C circuit through a capacitor which one is:	<p>A. Current leads voltage by 90°</p> <p>B. Current lags behind voltage by 90°</p> <p>C. Both will be in phase</p> <p>D. None of above</p>
544	The existence of positron in 1928 was predicted by	<p>A. Anderson</p> <p>B. Dirac</p> <p>C. Chadwick</p> <p>D. Plank</p>
545	The central region of a transistor is called.	<p>A. Emitter</p> <p>B. Collector</p> <p>C. Base</p> <p>D. Neutral</p>
546	The peak value of A.C source is 20 A, then its rms value will be.	<p>A. 14.1 A</p> <p>B. 10 A</p> <p>C. 20 A</p> <p>D. 28.2 A</p>
547	Which of the modulus of elasticity is involved in compressing a rod to decrease its length ?	<p>A. Young's modulus</p> <p>B. Bulk modulus</p> <p>C. Modulus of elasticity</p> <p>D. None of these</p>

A. High atomic number and high melting point

548	Target material used in x-rays tube have following properties.	<p>A. High atomic number and high melting point</p> <p>B. High atomic number and low melting point</p> <p>C. Low atomic number and low melting point</p> <p>D. High atomic number only</p>
549	Low level radiations effects	<p>A. Less of hair</p> <p>B. Ulceration</p> <p>C. Drop of white blood cells</p> <p>D. All</p>
550	The existence of positron was discovered in:	<p>A. 1929</p> <p>B. 1928</p> <p>C. 1931</p> <p>D. 1933</p>
551	In a coil current change from 2 to 4 A in .05 s . If the average induced emf is 8 V then coefficient of self-inductance is:	<p>A. 0.2 henry</p> <p>B. 0.1 henry</p> <p>C. 0.8 henry</p> <p>D. 0.04 henry</p>
552	The most common source of an A.C. Voltage is.	<p>A. Motor</p> <p>B. Cell</p> <p>C. Generator</p> <p>D. Thermo couple</p>
553	The phase difference between current and voltage in an inductive circuit is.	<p>A. zero</p> <p>B. 90°</p> <p>C. 180°</p> <p>D. 45°</p>
554	Step up transfer has a transformation ratio of 3:2. What is the voltage in secondary , If voltage in primary is 30 V?	<p>A. 45 V</p> <p>B. 15 V</p> <p>C. 90 V</p> <p>D. 300 V</p>
555	Most of the electrons in the base of an NPN transistor flow:	<p>A. Out of the base lead</p> <p>B. Into the collector</p> <p>C. Into the emit</p> <p>D. Into the base supply</p>
556	Unit of decay constant λ is:	<p>A. ms</p> <p>B. m^{-1}</p> <p>C. m</p> <p>D. s^{-1}</p>
557	The only difference between the construction of D.C and A.C is.	<p>A. Carbon burshes</p> <p>B. Coil</p> <p>C. Commutator</p> <p>D. Magnetic field</p>
558	A PN junction can not be sued a.	<p>A. Rectifier</p> <p>B. Amplifier</p> <p>C. Detector</p> <p>D. LED</p>
559	If the coil is wound on iron core, the flux through it.	<p>A. Decreases</p> <p>B. Becomes zero</p> <p>C. Increases</p> <p>D. Remains constant</p>
560	The open loop gain of the amplifier is order of.	<p>A. 10^6</p> <p>B. 10^5</p> <p>C. 10^7</p> <p>D. 10^3</p>
561	substance which undergo plastic deformation until they break are known as.	<p>A. Brittle substances</p> <p>B. Ductile substance</p> <p>C. Non magnetic substance</p> <p>D. Magnetic substance</p>
562	The middle region of electric field is:	<p>A. Maximum field spot</p> <p>B. Zero field spot</p> <p>C. Perpendicular field spot</p> <p>D. All of above</p>
563	The shortest wave length is Bracket series has wave length.	<p>A. $16/R_n$</p> <p>B. $R_n/16$</p> <p>C. $16 R_n$</p> <p>D. $4 R_n$</p>
564	When some di electric is inserted between the plates of a capacitor, then capacitance.	<p>A. Decreases</p> <p>B. Increases</p> <p>C. Becomes zero</p> <p>D. Becomes infinity</p>
565	The motional emf is give by	<p>A. qvB</p> <p>B. IBL</p> <p>C. eBL</p> <p>D. vBL</p>

566	Those materials whose resistivity becomes zero at certain temperature is called:	A. Semiconductor B. Super conductor C. Conductor D. Insulator
567	The SI unit of magnetic permeability is.	A. $\text{WbA}^{-1}\text{m}^{-1}$ B. Wbm^{-2} C. WbmA^{-1} D. WbAm^{-1}
568	Three resistors of resistance R each are combined in various ways, Which of the following cannot be obtained?	A. $3R$ B. $2R/4Q$ C. $R/3Q$ D. $2R/3Q$
569	The binding energy for _____ is maximum.	A. Copper B. Glass C. Iron D. Aluminum
570	The total charge of any nucleus is:	A. Ze B. Z C. Both a and b D. None of above
571	Einstein was awarded Nobel prize in physics in	A. 1905 B. 1911 C. 1918 D. 1921
572	The device which allows only the continuous flow of AC through it is.	A. Inductor B. Battery C. Thermistor D. Capacitor
573	If both the length and radius of the rod are doubled, then the modulus of elasticity will:	A. Increase B. Decrease C. Remains the same D. Doubled
574	An ideal current source shall have resistance	A. Zero B. Finite but not zero C. Infinite D. Depend upon requirement
575	Unit of self inductance is	A. Weber B. Tesla C. Henry D. Farad
576	Photo copier and inkjet printer are the applications of	A. Magnetism B. Electricity C. Electro magnetism D. Electrostatics
577	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
578	The effective value of any sinusoidal alternating current or voltage is	D. None of the above
579	The photoelectric effect predicts that light is made of	A. Photons B. Neutrons C. Protons D. None of these
580	The flow of D.C current is opposed by	A. Resistor B. Induction C. Capacitor D. All of these
581	Charge on an electron was determined by	A. Ampere B. Millikan C. Maxwell D. Bohr
582	Which one is not a ductile material	A. Lead B. Steel C. Copper D. Wrought Iron
583	The sensor of light is.	A. Transistor B. LED C. Diode D. Light dependent resistance

584	Lenz's law was given by Heinrich lenz in:	A. 1894 B. 1904 C. 1854 D. 1834
585	Drum of photocopier is made of.	A. Copper B. Aluminum C. Nickel D. Cobalt
586	At high frequency the value of reactance of capacitor will be.	A. Small B. Zero C. Large D. Infinite
587	The domain theory of magnet is important to explain the behaviour of	A. Diamagnets B. Paramagnets C. Ferromagnets D. All of these
588	The electrostatic force between two charges is 42 N, If we place a dielectric of $\epsilon_r=2.1$ between the charges then the force become equal to.	A. 42 N B. 88.2 N C. 20 N D. 2 N
589	All motions are	A. Absolute B. Uniform C. Relative D. Variable
590	Alpha particle carries a charge.	A. -e B. +2e C. -2e D. No charge
591	The number of protons in any atom are always equal to the number of	A. Neutrons B. Electrons C. Positrons D. Mesoris
592	1 rem =	A. 0.001 SV B. 0.01 SV C. 0.1 SV D. 1.01 SV
593	An expression for gain of an inverting amplifier is	C. $(R_{sub>1</sub>/R_{sub>2</sub>})$ D. None of these
594	Efficiency of transformer does not affected by	A. Input voltage B. Core of transformer C. Insulation between sheet D. Resistance of coils
595	The permeability of free space is measured in	A. wb A/m B. Am/wb C. wb/Am D. m/wbA
596	The mass of beta particle is equal to mass of.	A. Protons B. Electrons C. Neutrons D. Boron
597	A capacitor is charged with a battery and then it is disconnected. A slab of dielectric is now inserted between the plates, Then	A. The charge in the plates reduces and potencial difference increase B. Potencial difference between the plates increase, stored energy decreases and charge remains the same C. Potencial difference between the plates decreases, stored energy decreases and charge remains unchanged D. None of them
598	In three phase A.C. generator the phase difference between each pair of coil is.	A. 45° B. 90° C. 120° D. 60°
599	In frequency modulation which factor changed.	A. Amplitude of charge carriers B. Frequency of charge carriers C. Amplitude of signal D. Frequency of signal
600	A resistance frequency the impedance of RLC parallel circuit is.	A. Zero B. Infinite C. Maximum D. Minimum

A. Zero

601	If a charge is at rest in a magnetic field then force on charge is	B. Double C. One fourth D. Four times
602	The term inverter is used for.	A. NOR gate B. XNOR gate C. NAND gate D. NOT gate
603	X_L is low for low frequency f but X_C is.	A. Zero B. Low C. High D. Same is H
604	Coulomb /volt is called.	A. Farad B. Ampere C. Joule D. Henry
605	The dimension of stress is	A. $[MLT^{-1}]$ B. $[ML^{-1}T]$ C. $[ML^{-1}T^{-1}]$ D. $[ML^{-1}T^{-2}]$
606	The unit for Planck's constant is:	A. Js^{-1} B. Jm C. Js D. Jm^2
607	The condition of resonance is:	A. $X_L = 1/2 X_C$ B. $X_L = X_C$ C. $X_C = 4X_L$ D. None of above
608	1 amu is equal to	A. 1.0606×10^{-27} kg B. 1.66×10^{-31} kg C. 1.66×10^{-34} kg D. 1.66×10^{-19} kg
609	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
610	The function of three anodes a C.R.O is	A. To accelerate electrons only B. To focus the electrons only C. To control the brightness of spot on screen D. To accelerate and focus the electrons
611	Lenz's law is a consequence of the law of conservation of	A. Charge B. Momentum C. Energy D. Angular momentum
612	A transistor has:	A. Two regions B. Three regions C. Single regions D. Four regions
613	The input resistance of an op amplifier is.	A. Low B. High C. Zero D. Equal to output resistance
614	A charged particle having charge 'q' is moving at right angle to magnetic field. The quantity which varies is.	A. Speed B. Kinetic energy C. Path of motion D. angular velocity
615	In Millikan's oil drop experiment a charged particle of mass 'm' is in equilibrium in an oil	A. Zero B. $g/2$ C. g D. $2g$
616	In Series resonance circuit the impedance of circuit at resonance frequency, is	A. Maximum B. Minimum C. It is unequal to R D. None of above
617	Photo electrons are emitted by using visible light when the metal is.	A. sodium B. Copper C. Nickel D. Cobalt
618	At 0 K a piece of silicon is a	A. Conductor B. Semi-conductor C. Insulator D. All

619	The line radiations emitted from by hydrogen filled discharge tube can be analyzed into.	A. Band spectrum B. Line spectrum C. Continuous spectrum D. Absorption spectrum
620	The fact that electric field exist in space around an electrical charge is	A. Electrical property B. Gravitational property C. Intrinsic property of nature D. Extrinsic property of nature
621	The P.D develop in case of germanium is:	A. 0.3 B. 0.7 C. 0.5 D. 0.9
622	If D.C. input for step up transformer, the output is	A. Zero B. High C. Low D. May be high or low
623	Half life of radon gas is	A. 3.8 minutes B. 3.8 days C. 3.8 months D. 3.8 years
624	During negative half cycle of A.c then p-n junction offers.	A. High resistance B. Low resistance C. No resistance D. All of these
625	Which of the following has least hysteresis loop area.	A. Steel B. Wrought Iron C. Soft Iron D. Cobalt
626	The conventional current is due to the flow of	A. Atoms and molecules B. Positive charge C. Negative charge D. Bot (b) and (c)
627	For Paschen series, the value of 'n' starts from	A. 2 B. 4 C. 6 D. 8
628	The value of capacitive reactance is given by	A. $X_c = VI$ B. $x_c = 1/wc$ or $x_c = wL$ C. $x_c = 1 * wc$ or $x_c = Lw$ D. All of above
629	The mass spectrum of naturally occurring neon, showing	A. 1 isotope B. 2 isotope C. 3 isotope D. 4 isotope
630	The electric field created by positive charge is	A. Radially inward B. Zero C. Circular D. Radially outward
631	Which one of the following resistance is used to convert a Galvanometer into an ammeter.	A. High resistance B. Low resistance in series with galvanometer C. Shunt D. High resistance in series with galvanometer
632	Electron volt is the unit of.	A. Potential B. Potential difference C. Electric current D. Electric energy
633	Step up transformer is used.	A. Step up D.C. voltage B. Step up A.C. voltage C. Step up both A.C and D.C. D. Step up A.C. current
634	In extrinsic semiconductors doping is of the order of.	A. 1 atom to 10^{4-6} B. 1 atom to 10^{6-8} C. 1 atom to 10^{8-10} D. 1 atom to 10^{3-4}
635	A positive charge is moving towards an observer, The direction of magnetic induction will be.	A. Toward right B. Anti clockwise C. Clockwise D. Toward left
636	The combined effect of resistance and reactance in circuit is called:	A. Impedance B. Inductance C. Capacitance

		D. None of above
637	For normal transistor the emitter current can be given by	A. $I_E = I_C$ B. $I_E = I_C + I_B$ C. $I_E = I_B$ D. None of these
638	The reactance of inductor depends upon	A. L D. All of the above
639	The unit of radioactivity is:	A. Becquerel B. Henry C. Pascal D. Joule
640	Study of hydrogen visible spectrum in	A. 1886 B. 1887 C. 1895 D. 1885
641	The number of Isotopes of cesium are.	A. 4 B. 32 C. 22 D. 36
642	The inductive reactance of a coil is direction proportional to.	A. Inductance B. Resistance C. Frequency of A.C. D. Both frequency of A.C. and inductance
643	First spectral series of hydrogen atom was discovered by	A. Lyman B. Rydberg C. Balmer D. Paschen
644	The main reason for world wide use of A.C is because:	A. It is very high power B. It can be transmitted over long distance C. It is cheaper to use D. All of above
645	Electric field intensity at a point is defined by the relation.	A. $E = q/F$ B. $E = F/q$ C. $E = qF$ D. $E = F/q^2$
646	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
647	The unit of resistance is:	A. Ω B. Ωm C. $\Omega^{sup>-1</sup>m^{sup>-1</sup>}$ D. $\Omega m^{sup>-1</sup>}$
648	A two inputs NAND gat with inputs a and b has an output '0' if.	A. B is zero B. A is zero C. Both A and B are 1 D. Both A and B are '0'
649	A soft iron cylinder is placed inside coil galvanometer to:	A. Make field circular and strong B. Make field radial and weak C. Make field radial and strong D. All of above
650	The most refined form of matter is:	A. Smoke B. Light C. Ice D. Fog
651	when an inductor comes close to a metallic object, its inductance is.	A. Decreased B. Increased C. Becomes half D. Becomes 4 times
652	In 'N' type material, the minority charge carriers are.	A. Free electrons B. Holes C. Protons D. Mesons
653	A photo diode can turn its current ON and OFF in	A. Micro seconds B. Mega seconds C. Nano seconds D. Mili seconds
654	With the speed of motor, magnitude of back emf	A. Remain same B. Increase C. Decrease D. First increases then decreases

655	_____ has the largest de Broglie wavelength at same speed.	A. Proton B. Alpha particle C. Carbon atom D. Electron
656	Power dissipated in a pure inductor is.	A. Large B. Small C. Infinite D. Zero
657	A.C. can be converted into D.C. by	A. An oscillator B. Detector C. An amplifier D. Rectifier
658	The unit of temperature co efficient of resistivity is.	A. Ohm -m B. K-1 C. K D. Ohm
659	Reverse current flows due to	A. Majority charge carriers B. Minority charge carriers C. Electrons D. Holes
660	Calculate current in $2R/4\Omega$ resistor.	A. 1 A B. $2R/4\Omega$ C. $R/3\Omega$ D. $2R/3\Omega$
661	If an object moves with speed of light, its mass will be.	A. Zero B. Maximum C. Minimum D. infinity
662	One use of a single p-n junction semiconductor in an electrical circuit is a	A. Rectifier B. Transistor C. Battery D. Diode
663	The Lenz's law is also statement of:	A. Law of conservation of mass B. Law of conservation of charge C. Law of conservation of energy D. Law of conservation of momentum
664	In RLC circuit the energy is dissipated in	A. R only B. R and L C. R and C D. L and C
665	Gamma rays from cobalt -60 are used for treatment of.	A. Circulation of blood B. Cancer C. Heart Attack D. Thyroid glands
666	Magnetic induction can be measured in units of.	A. Tesla B. Gauss C. Weber/m ² D. All of the above
667	A charge on 4 coulomb is in the field of intensity 4NC the force on the charge is.	A. Uniform B. Non uniform C. Weak D. Strong
668	The activity of radioactive sample	A. Is constant B. Increases with time C. Decreases linearly with time D. Decreases exponentially with time
669	In an N-type silicon, which of the following statement is true?	A. Electrons are majority carriers & trivalent atoms are the dopants B. Electrons are majority carriers & pentavalent atoms are the dopants C. Holes are minority carriers & pentavalent atoms are the dopants. D. Holes are minority carriers & trivalent atoms are the dopants.
670	The power factor of RL series circuit is.	A. 0 B. 1 C. Less than 1 D. More than one
671	Photo diode is used for detection of.	A. Heat B. Magnet C. Current D. Light

672	A black body is an ideal:	A. Absorber B. Radiator C. Both a & b D. None of above
673	A positron is an anti particle of.	A. Proton B. Electron C. Neutron D. Photon
674	The potential difference across the depletion region of germanium is.	A. 0.3 V B. 0.5 V C. 0.7 V D. 0.8 V
675	Balmer series lies in region of electromagnetic spectrum.	A. Infrared B. Visible C. Ultraviolet D. Far infrared
676	A solid in which there is not regular arrangement of molecules is called.	A. Glassy solid B. Amorphous solid C. Crystalline solid D. Both a and b
677	Lenz's law presented in	A. 1834 B. 1934 C. 1826 D. 1836
678	A substance having the negative temperature coefficient of resistivity out of the following is.	A. Carbon B. Iron C. Tungsten D. Gold
679	The electric intensity due to two oppositely charged plates is	D. None of these
680	Which one is photo conductor.	A. Copper B. Selenium C. Mercury D. Aluminium
681	Which of the following has bulk modulus?	A. Water B. Gas C. Honey D. All
682	Out of the following which material is brittle.	A. Wrought iron B. Copper C. Tungsten D. High steel carbon
683	The induction can be increased by winding the wire around a core made of.	A. Copper B. Silicon C. Iron D. Aluminum
684	Hydrogen bomb is an example of.	A. Nuclear fission B. Nuclear fusion C. Chain reaction D. Chemical reaction
685	In order to measure potential difference voltmeter is always connected in.	A. Series B. Parallel C. Both a and b D. Neither in series nor in parallel
686	If 13.6 eV energy is required to ionize the hydrogen atom, then the required energy to remove an electron from $n=2$ is:	A. 10.2 eV B. 0 eV C. 3.4 eV D. 6.8 eV
687	Which device is used as a rectifier?	A. Capacitor B. Transistor C. Diode D. Transformer
688	Both Xenon and cesium have	A. 33 isotopes B. 34 isotopes C. 36 isotopes D. 35 isotopes
689	Dielectric constant ϵ_r for air is:	A. 1 B. 1.006 C. 1.0002 D. 1.0006

A. Anticlockwise

690	The north pole of a magnet is brought near a metallic ring. The direction of induced current in the ring will be:	<p>A. Anticlockwise</p> <p>B. Clockwise</p> <p>C. First Clockwise and then Antoclockwise</p> <p>D. First anticlockwise and then Clockwise</p>
691	The mathematical symbol for NOR operation is	<p>B. $X = A \cdot B$</p> <p>C. $X = A + D$</p>
692	The early Greeks believed that matter waves was	<p>A. Discrete</p> <p>B. Continuous</p> <p>C. Both continuous and discrete</p> <p>D. All of above</p>
693	If F_1 and F_2 are the magnetic forces acting on a particle and electron respectively when moving perpendicular to the magnetic field then.	<p>A. $F_1 = F_2$</p> <p>B. $F_1 > F_2$</p> <p>C. $F_1 < F_2$</p> <p>D. $F_1 = 4F_2$</p>
694	The AC system is preferred to DC system because:	<p>A. AC voltage can be easily changed in magnitude</p> <p>B. DC motor angular velocity is affected badly</p> <p>C. High voltage AC transmission is less efficient</p> <p>D. Domestic appliance require AC voltage for their operation</p>
695	100 micro F capacitor is connects to an AC voltage 24 V and frequency 50 Hz. The reactance of the capacitor is.	<p>A. 30.8 Ohm</p> <p>B. 31.8 Ohm</p> <p>C. 34.8 Ohm</p> <p>D. 40 Ohm</p>
696	In case of inductor , energy is stored in the	<p>A. Electric field</p> <p>B. Magnetic field</p> <p>C. Potential field</p> <p>D. Gravitational field</p>
697	The energy of 4th Orbit in hydrogen atom is.	<p>A. -2.51 eV</p> <p>B. -3.50 eV</p> <p>C. -13.60 eV</p> <p>D. -0.85 eV</p>
698	If the north pole of a magnet moves away from a metallic ring	<p>A. Clockwise</p> <p>B. Anticlockwise</p> <p>C. First clockwise and then anticlockwise</p> <p>D. None of above</p>
699	If force in the direction of velocity of conductor, then induced current is directed,	<p>A. Anti clockwise</p> <p>B. Clock wise</p> <p>C. At equilibrium</p> <p>D. None of above</p>
700	A changing electric flux creates.	<p>A. Electric fields</p> <p>B. Gravitational</p> <p>C. Magnetic field</p> <p>D. Electric charge</p>
701	X-rays are similar in nature to.	<p>A. Gama rays</p> <p>B. Beta rays</p> <p>C. Alpha rays</p> <p>D. Cathode rays</p>
702	Improper bisting of a transistor circiut produces:	<p>A. Heavy loading of emitter current</p> <p>B. Distortion in the output output signal</p> <p>C. Excessive heat at collector terminal</p> <p>D. Faculty location of load line</p>
703	The acceleration of an electron of mass m and charge e , moving with uniform speed v at right angles to a magnetic field of flux density B , is given by	<p>D. $Bevm$</p>
704	When platinum is it becomes orange at	<p>A. 500°C</p> <p>B. 900°C</p> <p>C. 1100°C</p> <p>D. 1300°C</p>
705	Radius of first orbit of an atom is $r_1 = 0.053 \text{ nm}$, Radius of second orbit r_2 will be.	<p>A. 0.106 nm</p> <p>B. 0.212 nm</p> <p>C. 0.053 nm</p> <p>D. $0.53 \times 10^{\sup{-10</sup>}} \text{ nm}$</p>
706	In case of A.C. through resistor V and I are	<p>A. At $0^{\sup{o}}$ with each other</p> <p>B. At $180^{\sup{o}}$ with each other</p> <p>C. At $90^{\sup{o}}$ with each other</p> <p>D. At $270^{\sup{o}}$ with each other</p>
707	The idea of laser device was first introduced by C.H. Towners and Authers Schowlan is	<p>A. 1972</p> <p>B. 1965</p> <p>C. 1958</p> <p>D. 1913</p>
708	What is the co-efficient of mutual inductance, when the magnetic flux changes	<p>A. 2 H</p> <p>B. 3 H</p>

708	by 2×10^{-2} Wb, and change in current is 0.01 A?	C. $\frac{1}{2}$ H D. Zero
709	A one microfarad capacitor of a TV is subjected to 4000 V potential difference. The energy stored in capacitor is:	A. 8 j B. 16 j C. 4×10^{-3} j D. 2×10^{-3} j
710	Unit of impedance is:	A. Ohm B. Ohm^{-1} C. no unit D. Ohm m^{-1}
711	Logic gate can control some physical parameters like.	A. Temperature, Pressure B. Resistance, Inductance C. Capacitance, Impedance D. Current, voltage
712	The SI Unit of magnetic induction is.	A. Weber B. Tesla C. Gauss D. Newton
713	If the number of turns become double but length remain same, then magnetic field in the solenoid become.	A. Half B. Double C. Remain same D. Zero
714	The field is strong and uniform.	A. Inside the solenoid B. Surrounding of solenoid externally C. Perpendicular to solenoid D. All of above
715	Bremsstrahlung radiation are examples of	A. Atomic spectra B. Molecular spectra C. Continuous spectra D. Discrete spectra
716	A real transformer does not change.	A. Voltage level B. Current level C. Power level D. Frequency
717	The curie temp for iron is about	A. 800°C B. 740°C C. 750°C D. 650°C
718	A current generator device converts:	A. Mechanical energy into chemical energy B. Chemical energy into electrical energy C. Mechanical energy into electrical energy D. Both b and c
719	Selenium is	A. Insulator is dark B. Insulator in light C. Conductor in dark D. Semi conductor in dark
720	For normal use:	A. Emitter base junction is reversed biased B. Collector base junction is reserved biased C. Emitter base junction is forward biased D. Both c and b
721	e.m.f is the conversion of ----- energy into electrical energy	A. Chemical B. Solar C. Light D. None of these
722	The magnetic field inside solenoid is given:	A. $\mu_0 n^2 l$ B. $\mu_0 n l$ C. $\mu_0 n / l^2$ D. $\mu_0 l / n$
723	Materials can be identified by measuring their	A. Mass B. Half life C. Both a and b D. None of a,b,c
724	The illustration of the phenomenon of mutual induction is in the device of	A. Transformer B. Inductor C. A.C. Generator D. Ammeter
725	Charge on positron is:	A. Negative B. Positive C. Natural D. None of these
726	Which one of the following is correct	A. $\frac{1}{\mu_0}$

720	which one of the following is correct	D. All of above
727	The word amorphous means:	A. Regular structured B. Without form or structure C. Frozen structured D. None of above
728	Energy stored in an inductor is:	A. $\frac{1}{2}L²I$ B. $\frac{1}{2}L²I$ C. $_{1/2L}²$ D. $\frac{1}{2}LI$
729	Eddy current is one cause energy loss in	A. A.C. generator B. Transformer C. D.C. motor D. D.C. generator
730	Wave nature of light appears in	A. Pair production B. Compton effect C. Photo electric D. Interference
731	Choke consumes extremely small	A. Current B. Charge C. Power D. Potential
732	The head produced by the passage of current through a resistor is.	A. $H= I²Rt$ B. $H = IR²t$ C. $H = 1/Rt$ D. $H = I²/Rt$
733	The solids are classified as	A. Polymeric B. Amorphous C. Crystalline D. All of above
734	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
735	The SI unit of decay constant is	A. m B. $m⁻¹$ C. $S⁻¹$ D. $Nm⁻¹$
736	The absolute electric potential at a point distance 20 cm from a charge of 2 μC is.	A. $9 \times 10² V$ B. $9 \times 10³ V$ C. $9 \times 10⁴ V$ D. $9 \times 10⁵ V$
737	10^6 electrons are moving through a wire per second the current developed is:	A. $1.6 \times 10^{-19} A$ B. 1 A C. $1.6 \times 10^{-13} A$ D. 106 A
738	The Kirchhoff 1 st 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
739	Who explained the photo electric effect.	A. Max Plank B. Einstein C. Henry D. Rutherford
740	A diode characteristics curve is a plot between	A. Current and resistance B. Voltage and time C. Voltage and current D. Current and time
741	Self inductance of a long solenoid is given by	D. None of the above
742	A° is the unit of:	A. Energy B. Length C. Nuclear energy D. Work
743	The unit of strain is:	A. Nm B. $Nm⁻²$ C. no unit D. $Nm²$
744	The self induction emf is some times called.	A. Motional emf B. Constant emf C. Back emf D. Variable emf

745	Which is the most refined form of matter.	A. Smoke B. Fog C. Light D. Electron
746	The mass of proton in amu is:	A. 1.07276 B. 1.7276 C. 1.007276 D. 1.0007276
747	The negative sign with induced emf in Faraday's law is in accordance with	A. Lenz's law B. Amperes law C. Boyle's law D. Gauss law
748	The Weber is unit of measure of:	A. Conductance B. Electric current C. Magnetic flux D. Electric flux
749	In self induction A coil is connected in _____ with battery and a rheostat.	A. Parallel B. Series C. Both A and B D. None of above
750	A galvanometer is an electrical instrument used to	A. Measure resistance B. Measure voltage C. Detect passage of current D. None of these
751	The quantity time constant RC has units of.	A. Charge B. Time C. Capacitance D. Resistance
752	The "toner" of photocopier is given:	A. Positive charge B. Negative charge C. Remains neutral D. All of above
753	An atom can reside in excited state for	A. 10^{-8} second B. One second C. 10^{-10} second D. More than one second
754	In the capacitive circuit of A.C. quantity when $q = 0$ the slope of q - t curve is.	A. Maximum B. Minimum C. Zero D. Negative
755	Number of electrons emitted in photo electric effect depend upon.	A. Intensity of incident light B. Frequency of incident light C. Energy of incident light D. Wavelength of incident light
756	In current carrying long solenoid the magnetic field produced does not depend upon.	A. The radius of solenoid B. Number of turns per unit length C. Current flowing through solenoid D. All of the above
757	An electron enters the magnetic field at right angle from left, B is into paper. The electron will be deflected.	A. upward B. To ward right C. Down ward D. Toward left
758	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
759	If speed of rotation of a generator is doubled the output voltage will be.	A. Remain same B. Double C. Four time D. One half
760	The resonance frequency is given by:	A. $f_r = 2\pi\sqrt{LC}$ B. $f_r = 1/2\pi LC$ C. $f_r = 1/2\pi\sqrt{LC}$ D. $f_1 = 1/2\pi C\sqrt{L}$
761	Before and after nuclear reaction the number of protons and neutrons:	A. Must be different B. Must be decreased C. Must be increased D. Remains same
762	When transistor are used in digital circuits they usually operate in the :	A. Active region B. Break down region C. Saturation & cutoff regions

		C. Saturation ramp, cutoff regions D. Linear region
763	Which one pair belongs to acceptor impurity.	A. Arsenic, phosphorus B. Boron, gallium C. Arsenic, antimony D. Antimony, indium
764	Earth orbital speed is	A. 10 km/s B. 20 km/s C. 30 km/s D. 40 km/s
765	The ratio of potential barriers of Ge to Si at room temperature is.	A. 7:3 B. 1:3 C. 2:5 D. 3:7
766	Conductors have conductivities of order:	A. $10^{3-7}(\Omega m)^{-1}$ B. $10^{7-17}(\Omega m)^{-1}$ C. $10^{7-9}\Omega m^{-1}$ D. $10^{6-9}\Omega m^{-1}$
767	A light emitting diode emits light only when	A. Reverse biased B. Forward biased C. Unbiased D. None of these
768	The product of resistance and capacitance is.	A. Velocity B. Force C. Acceleration D. Time
769	Transistor was discovered by	A. Young B. Curie C. John Bardeen D. Shale's
770	Energy density of an inductor is:	A. $U_m = \frac{1}{2} \mu B^2$ B. $U_m = 2 \mu B^2$ C. $U_m = \frac{1}{2} B^2 / \mu$ D. $U_m = 2 B^2 / \mu$
771	The phase difference between the current and voltage at resonance is:	A. 0 B. π C. $\pi/2$ D. $\pi/4$
772	A battery is used in	A. ohmmeter B. Ammeter C. Galvanometer D. Voltmeter
773	The quantity of U in the naturally occurring uranium is.	A. 0.2% B. 0.3% C. 0.7% D. 0.4%
774	How many neutrons are there in the nuclide Zn^{66} ?	A. 22 B. 30 C. 36 D. 66
775	When a coil is moved in a uniform magnetic field, an induced emf is produced due of change in	A. Flux density B. Electric flux C. Magnetic flux D. Magnetic field strength
776	In Wilson cloud chamber, β -particles leave	A. Thin and continuous tracks B. Thick and continuous tracks C. No tracks D. Thin and discontinuous tracks
777	Tolerance of "Gold" band.	A. $\pm 10\%$ B. $\pm 5\%$ C. $\pm 15\%$ D. $\pm 20\%$
	The resistivity of two wires in parallel which are connected in series is	A. $\frac{1}{\frac{1}{\rho_1} + \frac{1}{\rho_2}}$ B. $\frac{1}{\rho_1 + \rho_2}$ C. $\rho_1 + \rho_2$ D. $\rho_1 \rho_2$

778	The resistivity of two wires 1 and 2 which are connected in series. If their dimensions are same then the equivalent resistivity of the combination will be:	<p>A. $\frac{1}{2}(\rho_1 + \rho_2)$</p> <p>B. $\frac{1}{2}(\rho_1 - \rho_2)$</p> <p>C. $\frac{1}{2}(\rho_1 + \rho_2)$</p> <p>D. $\frac{1}{2}(\rho_1 - \rho_2)$</p>
779	The algebraic sum of potential change in a closed circuit is zero.	<p>A. Kirchhoff's 1st rule</p> <p>B. Kirchhoff 2nd rule</p> <p>C. Kirchhoff's 3rd rule</p> <p>D. Kirchhoff 4th rule</p>
780	Curie temperature is	<p>A. Different for chromium oxide and cobalt</p> <p>B. Same for chromium oxide and cobalt</p> <p>C. Same for iron and cobalt</p> <p>D. None of these</p>
781	Cobalt -60 is the source for	<p>A. Alpha rays</p> <p>B. Gamma rays</p> <p>C. Beta rays</p> <p>D. Neutron</p>
782	Example of ductile substance is.	<p>A. Glass</p> <p>B. Wood</p> <p>C. Lead</p> <p>D. Oxygen</p>
783	The main use of A.C is	<p>A. Minimum line losses</p> <p>B. Long distance transmission</p> <p>C. Stepping up to required voltage only</p> <p>D. Stepping down to required voltage only</p>
784	Binding energy for deuteron nucleus is given by	<p>A. 2.8 MeV</p> <p>B. 2.23 MeV</p> <p>C. 2.28 MeV</p> <p>D. 2.25 MeV</p>
785	Laser can be made by creating.	<p>A. Meta stable</p> <p>B. Population inversion</p> <p>C. Excited state</p> <p>D. All of these</p>
786	Magnetic flux density at a point due to current carrying coil is determined by	<p>A. Ampere's law</p> <p>B. Faraday's law</p> <p>C. Lenz's law</p> <p>D. Gauss's law</p>
787	How many times, the alpha particle is more massive than electrons.	<p>A. 6332</p> <p>B. 7332</p> <p>C. 8332</p> <p>D. 9332</p>
788	In gas the charge carriers are:	<p>A. Electrons</p> <p>B. Ions</p> <p>C. Both a & b</p> <p>D. None of above</p>
789	When Ohm meter gives full scale deflection it indicates.	<p>A. Zero resistance</p> <p>B. Infinite resistance</p> <p>C. Small resistance</p> <p>D. Very High resistance</p>
790	The device which allows only the flow of D.C. is.	<p>A. Capacitors</p> <p>B. transformer</p> <p>C. Inductor</p> <p>D. Generator</p>
791	If I_0 is the peak value of current, then its root mean square value is given by	<p>A. I_0</p> <p>B. $\frac{1}{2}I_0$</p> <p>C. $\frac{1}{\sqrt{2}}I_0$</p> <p>D. $0.7 I_0$</p>
792	An alternating quantity (voltage or current) is completely known if we know its:	<p>A. Maximum</p> <p>B. Frequency and phase</p> <p>C. Effective value</p> <p>D. Both (a) & (b)</p>
793	Two oppositely charged balls A and B attract the third ball C, when placed near them turn by turn The third ball C must be.	<p>A. Positively charged</p> <p>B. Negatively charged</p> <p>C. Electrically neutral</p> <p>D. Positively and negatively charged</p>
794	NC-1 is the SI unit is	<p>A. Force</p> <p>B. Charge</p> <p>C. Current</p>

D. Electric intensity

795	In order to increase sensitivity of galvanometer the value of C may be	A. Increase B. Decrease C. Neither increase nor decrease D. Remain same
796	Transistor was invented by:	A. Bardeen B. Micheal faraday C. Lenz D. Newton
797	For accurate measurement of current through a circuit, the resistance of ammeter should be	A. Very small B. Very high C. Neither small nor high D. None of the above
798	A capacitor is perfect in insulator for.	A. Alternating current B. Sparking current C. Eddy current D. Direct current
799	The electric field created by positive charge is:	A. Radially outward B. Circular C. Radially inward D. Zero
800	The SI unit of flux density is.	A. NA-1 m ² B. NA-1 m ⁻¹ C. NAM-1 D. NA-1 m
801	For automatic Switching of streetlight, the op amplifier is used as.	A. Inductor B. Converter C. Comparator D. Thermistor
802	The mass of beta particle is equal to the mass	A. Proton B. Neutron C. Electron D. Photon
803	The SI unit of relative permittivity is.	A. Fm ⁻¹ B. C ² N ⁻¹ m ⁻² C. Nm ² C ⁻² D. No unit
804	Lorentz force means the force acting on a particle, which is	A. Magnetic force only B. Electric force only C. Sum of electric and magnetic force D. None of these
805	Which material should be inserted between the plates of a capacitor in order to increase its capacitance.	A. Copper B. Mica C. Iron D. Tin
806	There is regular arrangement of molecules in:	A. Amorphous solids B. Crystalline solids C. Both a and b D. None of above
807	One electron volt is equal to.	A. 1.6×10^{-19} Joule B. 1.6×10^{-19} Coulomb C. 1.6×10^{-12} N D. 1.6×10^{18} Joule
808	The energy of photon for photoelectric effect is less than	A. 1 MeV B. 2 MeV C. 5 MeV D. 8 MeV
809	Which one is pentavalent impurity	A. Boron B. Gallium C. Antimony D. Indium
810	James chadwick discovered:	A. Proton B. Positron C. Neutron D. Electron
811	The sum of positive and negative peak value called.	A. R.M.S. value B. P-P value C. Peak value D. Average value
		A. Zero current

812	When back emf in motor is zero, it draws.	B. Minimum current C. Maximum current D. Steady current
813	The wavelength associated with the protons moving at speed of 40 m/s is.	A. 7.20 nm B. 9.02 C. 15.7 nm D. 17.3 nm
814	One weber is equal to:	A. $\text{N}\cdot\text{A}^2/\text{m}$ B. $\text{N}\cdot\text{m}^2/\text{A}$ C. $\text{N}\cdot\text{A}/\text{m}$ D. $\text{N}\cdot\text{m}/\text{A}$
815	the number of terminals in a semiconductor diode are	A. 2 B. 3 C. 4 D. 5
816	unit of Plank's constant is same as that of.	A. Acceleration B. Angular momentum C. Linear momentum D. Entropy
817	In Pakistan the frequency of A.C. supply is.	A. 50 Hz B. 60 Hz C. 45 Hz D. 70 Hz
818	Which factor does not affect the conductivity of PN-Junction diode.	A. Doping B. Temperature C. Voltage D. Pressure
819	The peak value of alternating current is $5\sqrt{2}$ A. The mean square value of current will be:	A. 5A B. 2.5A C. $5\sqrt{2}$ A D. $5\sqrt{2}$ A
820	Internal frame is a frame in which	A. 1st law holds B. 2nd law holds C. 3rd law holds D. Kelvin's law holds
821	Semiconductors have conductivity of order:	A. 10^{-8} to 10^{-6} (Ωm) B. 10^{-6} to 10^{-4} (Ωm) C. 10^{-2} to 10^5 (Ωm) D. 10^{-5} to 10^{-7} (Ωm)
822	Which is not characteristic of Laser.	A. Monochromatic B. Coherent C. Intense D. Multi direction
823	Einstein photoelectric equation is	D. None of these
824	The sensitivity of galvanometer directly depends upon	A. Magnetic field B. Area of coil C. Both a and b D. None of a, b, c
825	The ratio Beta in transistor is called.	A. Voltage gain B. Emitter gain C. Current gain D. Nuclear gain
826	The potential difference across depletion region in case of Si is	A. 0.6 volt B. 0.9 volt C. 0.7 volt D. 0.2 volt
827	Which is not fundamental logic gate.	A. NOT B. AND C. OR D. NAND
828	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
829	The SI unit of Stress is	A. Nm B. Nm^2

829	The change of current is	<p>C. $\frac{NM}{2}$</p> <p>D. $\frac{Nm}{3}$</p>
830	The gain of transistor amplifier depends upon	<p>A. Resistance connected with collector</p> <p>B. Resistance connected with base voltage</p> <p>C. Input voltage</p> <p>D. Output voltage</p>
831	K α -X-rays are produced due to transition of electron from.	<p>A. K to L shell</p> <p>B. L to K shell</p> <p>C. M to K shell</p> <p>D. M to L shell</p>
832	Conversion of only one half of A.C. into D.C. is called.	<p>A. Half wave amplification</p> <p>B. Wave amplification</p> <p>C. Half wave electrification</p> <p>D. Half wave rectification</p>
833	The device in the circuit that consume electrical energy are known as.	<p>A. Dissipaters</p> <p>B. Generator</p> <p>C. Load</p> <p>D. Motors</p>
834	Ampere's law is applicable to:	<p>A. Circular path</p> <p>B. Rectangular path</p> <p>C. To any closed path</p> <p>D. None of these</p>
835	If a step up transformer were 100% efficient the primary and secondary winding's would have the same.	<p>A. Current</p> <p>B. Power</p> <p>C. Voltage</p> <p>D. Direction of winding</p>
836	The peak value of alternating current is $5\sqrt{2}$ A. The mean square value of current will be:	<p>A. 5A</p> <p>B. 2.5A</p> <p>C. $5\sqrt{2}$ A</p> <p>D. $5\sqrt{2}$ A</p>
837	High frequency radio wave is called as	<p>A. Fluctuate</p> <p>B. Carrier wave</p> <p>C. Matter wave</p> <p>D. Mechanical wave</p>
838	Albert Einstein got noble prize in:	<p>A. 1926</p> <p>B. 1921</p> <p>C. 1918</p> <p>D. 1931</p>
839	Phase difference between V and I of an A.C through resistor is.	<p>A. Zero Degree</p> <p>B. 90°</p> <p>C. 80°</p> <p>D. 120°</p>
840	1 Henry =	<p>A. $\frac{V \cdot s}{A}$</p> <p>B. $\frac{V \cdot s}{A}$</p> <p>C. $\frac{V \cdot s}{A}$</p> <p>D. $\frac{V \cdot s}{A}$</p>
841	Question Image	<p>A. Wien's constant</p> <p>B. Planck's constant</p> <p>C. Davison constant</p> <p>D. Lumber's constant</p>
842	In carbon resistors, then value of Blue colour is.	<p>A. 6</p> <p>B. 7</p> <p>C. 8</p> <p>D. 9</p>
843	The anodes in cathode ray oscilloscope.	<p>A. Control number of waves</p> <p>B. Control brightness of spot formed</p> <p>C. Accelerate as well as focus beam</p> <p>D. Negative potential w.r.t to cathode</p>
844	Closeness of the electric field lines is the measure of.	<p>A. Direction of field</p> <p>B. Strength of field</p> <p>C. Potential difference</p> <p>D. Uniformity of field</p>
845	A wire stretched to double of its length, its strain is:	<p>A. 2</p> <p>B. 1</p> <p>C. 0</p> <p>D. 0.5</p>
846	The first laser was built by	<p>A. Arthur Schawlow</p> <p>B. T.H. Maiman</p> <p>C. Peter Sorokin</p> <p>D. C.H. Townes</p>

847	An electromagnetic wave goes from air to glass which of the following does not change?	A. Radio waves B. X-rays C. Ultra violet radiation D. Ultra sound waves
848	A charged particle enters in a strong magnetic field its K.E.	A. Remain constant B. Increases C. Decreases D. Increases then decreases
849	Using relativistic effects the location of an air craft after an hour fight can be predicated about	A. 20 m B. 50 m C. 760 m D. 780 m
850	The reciprocal of decay construct lamda of a radioactive element is.	A. Half life B. Mean life C. Curie D. total life
851	Cosmic rays consist of	A. Protons B. High energy photons C. Positron D. All of above
852	We can find from de Broglie formula	A. Wavelength B. Amplitude C. Speed of wave D. Frequency of wave
853	The drift velocity is of order:	A. 10^{-13} m/s B. 10^{-3} m/s C. 10^{-3} m/s D. 10^{-4} m/s
854	A charged conductor has charge on its.	A. Inner surface B. Outer surface C. Middle surface D. Surrounding space
855	Paschen series lies in the	A. Far ultraviolet region B. Visible region C. Ultraviolet region D. Inferred region
856	The electric intensity at infinite distance from the point charge is	A. Infinite B. Zero C. Positive D. Negative
857	Special organs called ampullae of lorenzenite are present in.	A. Bats B. Cats C. Dogs D. Sharks
858	For a current carrying solenoid the term 'n' has unit as.	A. No unit B. m^{-1} C. m^{-2} D. m^{-3}
859	Brightness of screen of CRO controlled by	A. Grid B. Filament C. Anode D. Cathode
860	A radio active substance has a half life of four months. 3 -fourth of the substance will decay in:	A. 6 months B. 8 months C. 12 months D. 16 months
861	We can never accurately describes all aspects of sbatomic particles simulatanously. It is correct according to:	A. Uncertainty Priciple B. De-broglie Theory C. Einstin Theory D. Photo electric effect
862	The rod of unit length is moving at 30 o through a magnetic field of 1 T. If the velocity of rod is 1 m/s, then induced emf in the rod will be given by	A. 1 V B. 0.25 V C. 0.5 V D. 0.6 V
863	The circuit in which current and voltage are in phase, the power factor is:	A. Zero B. 1 C. -1 D. 2
864	The maximum kinetic energy of emitted photo electrons depends upon.	A. The intensity of incident light B. Frequency of the incident light C. Metal surface D. Both frequency of incident light and metal surface

		D. Both frequency of incident light and metal surface.
865	The current flowing through each resistor of equal resistance in parallel combination is.	A. Same B. Different C. Zero D. Infinite
866	The use of LDR is in the circuit of.	A. Logic gate B. Rectifier C. Oscillator D. High Switch
867	Joule second is the unit of.	A. Energy B. Wein's constant C. Planck's constant D. Boyle's law
868	The charge of an alpha particle is equal to	A. -e B. +e C. -2e D. 2e
869	Sensitivity of a galvanometer can be increased by	A. Decreasing the value of torsional couple B. Decreasing number of turns C. Decreasing area of plane of coil D. Decreasing magnetic field
870	The name of the scientist who noted that a compass needle was deflected when placed near the current carrying conductor	A. Henry B. Faraday C. Coloumb D. Oersted
871	Cathode ray oscilloscope works by deflecting a beams	A. Neutrons B. Protons C. Electrons D. Positron
872	Frequency of x-rays depends upon.	A. Number of electrons striking target B. Accelerating potencial C. Nature of the target D. Both B and C
873	Mass equivalent of 931 MeV energy is:	A. 6.02×10^{-23} kg B. 1.766×10^{-27} kg C. 2.67×10^{-29} kg D. 6.02×10^{-87} kg
874	Light of 4.5 eV is incident on a Cesium surface and stopping potential is 0.25 eV, maximum K.E. of emitted electron is.	A. 4.5 eV B. 4.25 eV C. 4.75 eV D. 0.25 eV
875	Unit of decay constant λ is:	A. ms B. m^{-1} C. m D. S^{-1}
876	De-Broglie waves are associated with	A. Moving charged particles only B. Moving neutral particles only C. All moving particles D. All parties whether in motion or at rest
877	The quantity/factor h/m_0c has the dimensions of.	A. Length B. Time C. Mass D. Energy
878	For workers in nuclear facilities is, a weekly does of is normally considered safe	A. 1.0 msv B. 5.0 msv C. 2.0 msv D. 3.0 msv
879	1 gray is equal to.	A. 1 JKg^{-1} B. 1 KJg^{-1} C. 1 JKg D. 1 JKg^{-2}
880	Radioactivity happen due to the disintegration of	A. Nucleus B. Mass C. Electrons D. Protons
881	The color code of "Green"	A. 8 B. 3 C. 5 D. 7
882	If 1×10^7 electrons passes through a conductor in 1.0 micro second . then	A. 2 A B. 1.6 A

882	In a series circuit, the current is.	C. 2.6×10^{-6} A D. 1.6×10^{-6} A
883	Earth orbital speed is.	A. 10 km/s B. 20 km/s C. 30 km/s D. 40 km/s
884	In an LRC circuit, the capacitance is made one-fourth, when at resonance. Then what should be change in inductance, so that the circuit remain in resonance?	A. 4 times B. 1/4 times C. 8 times D. 2 times
885	Minimum number of semi conductor diodes required for full wave rectification are.	A. 1 B. 2 C. 3 D. 4
886	X-rays were discovered by	A. Curie B. Henry Becquerel C. Rontgen D. None of these
887	A positron is a particle having.	A. Mass equal to electron B. Charge equal to electron C. Mass equal to mass of electron but charge opposite to charge of electron. D. Mass equal to proton
888	When platinum wire is heated, it changes to cherry red at temperature.	A. 500°C B. 900°C C. 1100°C D. 1300°C
889	amu =	A. 1.06×10^{-27} kg B. 1.6606×10^{-27} kg C. 1.520×10^{-21} kg D. 1.6606×10^{-31} kg
890	The numerical value of Compton wavelength is equal to	A. 3.43×10^{-12} m B. 1.43×10^{-12} m C. 2.43×10^{-12} m D. 0.43×10^{-12} m
891	The number of electrons emitted depends upon	A. Colour of target surface B. Shape of surface C. Frequency of incident light D. Intensity of incident light
892	The value of Rydberg constant is	A. $1.0974 \times 10^7 \text{ m}^{-1}$ B. $1.0974 \times 10^7 \text{ m}^{-1}$ C. $1.0974 \times 10^6 \text{ m}^{-1}$ D. $1.0974 \times 10^6 \text{ m}^{-1}$
893	The process by which laser beam can be used to generate 3-dimensional images of objects is called	A. Holography B. Geography C. Tomography D. Radiography
894	In glass, molecules are irregularly arranged so it is known as.	A. Solid B. Liquid C. Solid liquid D. Gas
895	In current carrying long solenoid the magnetic field produced does not depend upon	A. The radius of solenoid B. Number of turns per unit length C. Current flowing through solenoid D. All of above
896	The gate, which changes the logic level to its opposite level is called	A. NOR gate B. AND gate C. OR gate D. NOT gate
897	Ampere second stands for the unit of.	A. Charge B. emf C. energy D. Power
898	The induced emf in a coil is proportional to:	A. Magnetic flux through the coil B. Rate of change of Magnetic flux through the coil C. Area of the coil D. Product of magnetic flux and area of the coil
899	In case of capacitor, the unit of reactance is	A. Farad B. Ohm C. Newton D. All of these

900	Electric current produces magnetic field, was suggested by.	A. Faraday B. Oersted C. Henry D. Lenz
901	The brightness of the spot of CRO screen is controlled by.	A. Anode B. Cathode C. Grid D. Deflecting plates
902	The direction of induced current is always so as to oppose the change which causes the current, this is the statement of	A. Lenz's law B. Faraday's law C. Ampere's law D. Coulomb's law
903	Output of D.C. motor is	A. A.C. energy B. Mechanical energy C. Chemical energy D. D.C. energy
904	The value of Stefan is constant is:	A. $4.57 \times 10^{-8} \text{ m}^2 \text{ s}^{-2} \text{ K}^2$ B. $5.67 \times 10^{-8} \text{ W m}^{-2} \text{ K}^{-4}$ C. $6.67 \times 10^{-11} \text{ W m}^2 \text{ s}^{-2} \text{ K}^4$ D. $7.45 \times 10^{-9} \text{ m}^2 \text{ s}^{-3} \text{ K}^3$
905	The most useful tracer is.	A. Strontium -90 B. Iodine -31 C. Cobalt -60 D. Carbon -14
906	Magnetic lines of force are.	A. Imaginary B. Real C. Perpendicular D. In phase with electric lines of force
907	Balmer series lies in	A. Visible region B. Invisible region C. Ultraviolet region D. Infrared region
908	Intensity of field inside a hollow charged sphere will be.	A. Negative B. Unaffected C. Zero D. Maximum
909	The process of copying is:	A. Axillugraphy B. Chromatography C. Xerography D. Spectrography
910	A.C is converted into D.C by	A. Dynamo B. Rectifier C. Motor D. Transformer
911	Boher proposed his atomic model in:	A. 1910 B. 1911 C. 1912 D. 1913
912	The negative of the potential gradient is	A. Electrostatic force B. Electromotive force C. Potential difference D. Electric field intensity
913	Base of transistor is of order:	A. 10^{-11} m B. 10^{-6} m C. 10^{-8} m D. 10^{-6} m
914	Rutherford performed on experiment on a nuclear reaction in:	A. 1921 B. 1981 C. 1927 D. 1932
915	Which one is not a crystalline solid.	A. Zinc B. Copper C. Nylon D. None of these
916	During electrolysis process, density of CuSO_4 solution	A. Remains constant B. Decreased C. Increased D. None of these

917	A transistor has parts:	<p>A. 2</p> <p>B. 3</p> <p>C. 4</p> <p>D. 5</p>
918	Electric power:	<p>A. $V \times I$</p> <p>B. $V \times I^2$</p> <p>C. V/I</p> <p>D. V/I^2</p>
919	The Basic circuit element in a D.C. circuits which controls the current and voltage is	<p>A. Resistor</p> <p>B. Inductor</p> <p>C. Capacitor</p> <p>D. Transistor</p>
920	Shear modulus is expressed as:	<p>A. $G = \tan \theta / F/A$</p> <p>B. $F/A/\tan \theta$</p> <p>C. $F/\tan \theta$</p> <p>D. $\tan \theta/A$</p>
921	Two metallic sphere of radius 2 cm and 4 cm get equal quantity of charge. Which has greater surface charge density ?	<p>A. 2nd sphere</p> <p>B. Both have same</p> <p>C. First sphere</p> <p>D. None of these</p>
922	If the kinetic energy of a free electron doubles, its de Broglie wavelength changes by the factor.	<p>A. $\sqrt{2}$</p> <p>B. $1/\sqrt{2}$</p> <p>C. 2</p> <p>D. $1/2$</p>
923	Some charge is being given to a conductor. Then its potencial	<p>A. Its maximum at surface</p> <p>B. Its maximum at its maximum at center</p> <p>C. Is remain same throughout the conductor</p> <p>D. Is maximum somewhere between surface and centre</p>
924	1 amu =	<p>A. 9.31 MeV</p> <p>B. 931 MeV</p> <p>C. 9.031 MeV</p> <p>D. None of above</p>
925	The force on a charge particle moving parallel to magnetic field is:	<p>A. Maximum</p> <p>B. Minimum</p> <p>C. Zero</p> <p>D. None of these</p>
926	The combined effect of resistance and reactance is knows as.	<p>A. Inductance</p> <p>B. Conductance</p> <p>C. Resistance</p> <p>D. Impedance</p>
927	The total flux through a closed surface.	<p>A. Directly proportional to shape and geometry</p> <p>B. Independent of medium</p> <p>C. Depend on shape and geometry</p> <p>D. Dependent on medium and the charge enclosed</p>
928	A force of 0.01 N is exerted on a charge 1.2×10^{-5} C at a certain point. The electric field at that point is	<p>A. 1.2×10^4 N/C</p> <p>B. 1.2×10^4 C/N</p> <p>C. 8.3×10^2 N/C</p> <p>D. 8.3×10^{-2} N/C</p>
929	The movement of conductor in magnetic field produces electrical current was discovered in:	<p>A. 1931</p> <p>B. 1731</p> <p>C. 1842</p> <p>D. 1831</p>
930	Electric potencial of earth is taken to be zero because the earth is good:	<p>A. Semiconductor</p> <p>B. Conductor</p> <p>C. Insulator</p> <p>D. Dielectric</p>
931	Photo diode detects.	<p>A. Visible light</p> <p>B. Radio waves</p> <p>C. X rays</p> <p>D. All of them</p>
932	Net charge enclosed by Gaussian surface is:	<p>A. zero</p> <p>B. maximum</p> <p>C. depend on intensity</p> <p>D. none of all</p>

A. Henry

933	Commentator was invented by	B. Ousted C. Maxwell D. William sturgeon
934	If electron jumps from second orbit to first orbit in hydrogen atom it emits photon of.	A. 3.40 eV B. 10.20 eV C. 13.6 eV D. 3.8 eV
935	The most abundant isotope of neon is:	A. Neon 21 B. Neon 20 C. Neon 22 D. None of above
936	In three phase A.C supply coils are inclined at an angle of.	A. 0° B. 90° C. 120° D. 80°
937	Kirchhoff's voltage rule is a way of stating conservation of.	A. Mass B. Charge C. Energy D. Momentum
938	The Compton effect is associated with	A. X-rays B. γ -rays C. Positive rays D. β -rays
939	The basic circuit element in A.C. circuit which controls current.	A. Resistor only B. Capacitor only C. Inductor only D. All of these
940	In Compton scatting, the value of shift is equal to Compton's wavelength, when X-rays is scattered at the angle of.	A. 90° B. Zero C. 120° D. 45°
941	The resistivity of -----decrease with the increase in temp	A. Gold B. Silver C. Copper D. Silicon
942	_____ is the building block of every electronic circuit.	A. Semi conductor diode B. Resistor C. Capacitor D. Amplifier
943	Which of the following series of hydrogen spectrum lies in ultra violet region.	A. Lyman sereis B. Paschen series C. Balmar series D. Bracket series
944	Application of wave like nature of particle is	A. Photodiode B. Optical microscope C. Electron microscope D. Compound microscope
945	Pulsating output of full wave rectifier can be made smooth by using circuit called.	A. Filter B. Amplifier C. Resistor D. Transistor
946	Pair production can take place only when energy of radiation is equal and greater than 1.02 MeV, thus correct option is.	A. X rays B. Gama rays C. Heat Radiation D. Ultraviolet rays
947	The output of two input is zero only when its.	A. Both inputs are zero B. Either input is zero C. Both inputs are one D. Either input is one
948	Which one of the following bulbs has the least resistance.	A. 100 W B. 200 W C. 500 W D. 1000 W
949	The bnding energy for nucleus A is 7.7 Me V and that for nucleus B is 7.8 MeV. Which nucleus has the larger mass?	A. Nucleas A B. Nucleus B C. Less than nucleus D. None of these
950	In pure capacitor A.C. circuit, the current I and charge q are.	A. In phase B. Out of phase C. Parallel to each other D. None of above

951	Doping is made comparatively larger in	A. Emitter B. Base C. Collector D. P -type semi conductor
952	In photocopier, then drum is coated with layer of.	A. Aluminium B. Copper C. Selenium D. silver
953	The net charge on a capacitor magnitude of charge of charge	A. Infinity B. $2q$ C. $Q/2$ D. Zero
954	An electron moves at 2×10^2 m/sec perpendicular to magnetic field of 2T what is the magnitude of magnetic force:	A. 1×10^{-6} N B. 6.4×10^{-17} N C. 3.6×10^{-24} N D. 4×10^6 N
955	The potential difference between the top and bottom of a cloud chamber is of the order of	A. 290 v B. 400 v C. 1 kv D. None of above
956	The ability of a body to return to its original shape is called.	A. Strain B. Stress C. Elasticity D. Plasticity
957	When gama rays are emitted, the nuclear mass.	A. Decreases by 4 units B. Does not change C. Increases by 2 units D. Increase by 1 unit
958	The expression $P = VI$ hold only when current and voltage are.	A. In phase B. Out of phase C. At right angle to each other D. At angle of 120°
959	The particles which do not experience strong force are called.	A. Baryons B. Hadrons C. Mesons D. Laptons
960	If a charged body is moved against the electric field it will gain.	A. P.E. B. K.E. C. Mechanical energy D. Electrical potential energy
961	The toner of printer is given	A. Positive charge B. Negative charge C. Neutral D. First positive then negative
962	Black Body radiation spectrum is an example of:	A. Atomic spectra B. Line spectra C. Continuous spectra D. None of above
963	Unit (S.I) of temperature coefficient of resistivity of a material is	A. K B. K^{-1} C. $^\circ C$ D. K^{-2}
964	Nuclear fission was discovered by:	A. Otto Hahn B. Friz strassmann C. Both a and b D. Michaelson
965	Platinum wire becomes yellow at a temperature of.	A. $900^\circ C$ B. $1300^\circ C$ C. $1600^\circ C$ D. $500^\circ C$
966	Torque on a current carrying coil	A. $\tau = IBA \cos$ B. $\tau = ILB \sin \alpha$ C. $\tau = IBA \sin \alpha$ D. $\tau = ILB \cos \alpha$
967	A cable breaks if stretched by more than 2mm. It is cut into two equal parts. How much either part can be stretched without breaking?	A. 25 m B. 1mm C. 2mm D. 0.5 m
---	If the ionization energy of hydrogen atom is 13.6 eV its ionization potential will	A. 136.0 volt B. 3.0 volt

968	If the ionization energy of hydrogen atom is 13.6 eV, its ionization potential will be	A. 13.6 volt C. 13.6 volt D. None of these
969	The P.D develop in case of silicon is:	A. 0.7V B. 0.3V C. 0.5V D. 0.9V
970	Gamma radiations are emitted due to:	A. De-excitation of atom B. De-excitation of nucleus C. Excitation of atom D. Excitation of nucleus
971	The types of quarks are.	A. 2 B. 3 C. 4 D. 6
972	A proton is about 1840 time than an electron. When it is accelerated by a potential difference if 1 kV, its kinetic energy will be:	A. 1884 ke V B. 1/1840 keV C. 1 keV D. 920 keV
973	The first superconductor was discovered in:	A. 1831 B. 1911 C. 1921 D. 1876
974	The Direction of induced current is always so as to oppose the change which causes the current, is:	A. Faraday's law B. Lenz's law C. Ohm's law D. Kirchhoff's 1st rule