PPSC Physics Full Book

Sr	Questions	Answers Choice
1	The magnetic flux density at the centre of a long solenoid is dependent on.	A. The number of turns per unit length of the silenced B. The volume of the solenoid C. The diameter of each turn of the solenoid D. All of above
2	The circuit in which current and voltage are in phase the power factor is.	A. Zero B. Unity C. Double D. 4 times
3	Which material has the highest magnetic susceptibility.	A. Steel B. Brass C. Iron D. Wood
4	Ebers-Moll model describes the working of a	A. BJT B. FET C. MOSFET D. UJT
5	Who was awarded Nobel Prize for predicting meson.	A. Yukawa B. Pauli C. Schrodinger D. Fermi
6	A bomb dropped from an aeroplane explodes in air, its total.	A. Momentum decreases B. Momentum increases C. K.E. Increases D. K.E. Decreases
7	Which particle is removed by a photon.	A. Quark B. Electron C. Proton D. Neutron
8	The amount of heat needed per unit mass to raise the temperature of a system one degree at constant pressure is numerically aqual to	A. The specific heat B. The specific thermal energy C. The specific heat at constant pressure D. the internal energy of the gas
9	What will be the sound speed if the frequency is doubled.	A. zero B. Half C. Double D. Unchanged
10	The object of a telescope is very large this is to have an image which is.	A. More magnified B. Of better resolution C. More bright D. More clear
11	A current carrying loop lying-in a magnetic field behaves lime a.	A. Magnetics pole B. Magnetic material C. Magnetic dipole D. Horse shoe magnet
12	Capacitive reactance is measured in	A. Henrys B. Ohms C. mhos D. electron volts
13	A terrestrial telescope produces	A. An react and real image B. An inverted and real image C. An inverted and virtual image D. An erect and virtual image
14	In rotational motion, the analogue of force is.	A. moment of inertia B. Moment of force C. Torque D. Rotational inertia
		A. Friction or rubbing

15	Which of these is not a method of charging.	B. Induction C. Contact or touching D. Convection
16	48 days after the receipt the amount of iodine -131 left behind is only.	A. 0.1325 g B. 0.2135 g C. 0.3125 g D. 0.1235 g
17	Which of the following does not produced an erect image.	A. Galilean telescope B. Terrestrial telescope C. Prism binoculars D. Astronomical telescope
18	Potential of earth's surface is.	A. Negative B. Positive C. Zero D. Infinite
19	What would be the colour of sky through hour the day .If the earth has no atmosphere.	A. Blue B. Red C. White D. Black
20	When a body is taken out of the earth's gravitational field, the P.E. with respect to earth is	A. Zero B. Minimum C. Maximum D. geothermal
21	Deuterium is	A. A transuranic element B. A type o cosmic particle C. An isotope of hydrogen D. An isotope of helium
22	On average there is no energy transfer in.	A. Sound waves B. Water waves C. Standing waves D. Mechanical waves
23	When a magnet is moved into the coil of wire there is a small reading on the galvanometer Which change would increase the size of the reading.	A. Pushing in the S-pole B. Pulling the magnet out C. Unwinding some of the turns of wire D. Moving the magnet faster
24	When the deforming force applied on a body produces change in length then it is said to be	A. Tensile stress B. compression stress C. Shear stress D. Shear modulus
25	The same notes being played on sitar and veena differ in.	A. Pitch B. Quality C. Both quality and pitch D. Neither quality nor pitch
26	A double convex an bubble in water will behave as.	A. Plane slab B. Concave mirror C. Convex lens D. Concave lens
27	The photons emitted in inner shell transition are.	A. Alpha particle B. Beta particle C. Gama particle D. Characteristic X-rays
28	Angular acceleration is produced due to	A. Centripetal force B. Torque C. Force D. Mass
29	X-rays are also used for	A. Ultrasound imaging B. endoscopy C. Computerized tomography scanning D. Magnetic resonance imaging scanning
30	The division and germier experiment relates to	A. Diffusion B. interference C. Polarization D. Electron diffraction
31	Increase in velocity of sound in air for 1 ^{o}C rise in temperature is.	A. 0.61 m s-1 B. 1.61 m s-1 C. 2.00 m s-1 D. 61.0 m s-1
		A. A type of proton B. A proton neutron bounded to

32	A deuteron is	B. A proton neutron bounded to gather. C. A type of beta particle D. A type of neutron
33	The centre of gravity of an object is also called.	A. Centre of buoyancy B. Centre of mass C. Centre of the body D. Torque
34	Which thermodynamic law state taht the entropy of a perfect system approaches zero.	A. Zeroth law of thermodynamics B. First law of thermodynamics C. Second law of thermodynamics D. Third law of thermodynamics
35	In the case of forced oscillations frequency of oscillation is.	A. The natural damped frequency B. The natural undamped frequency C. The frequency of the external periodic force D. Some other frequency
36	A bat while flying determines the location and nature of object in his way by sending.	A. Infrasonic waves B. Ultrasonic waves C. Supersonic waves D. Ultraviolet waves
37	The process of pair production will take place if the energy of photon is greater than	A. 0.21 MeV B. 0.51 MeV C. 1.51 MeV D. 1.21 MeV
38	The effective resistance in an A.C. circuit is	A. An inductance B. An impedance C. A mutual inductance D. Always zero
39	Unit vector of a vector A describes	A. Magnitude of a given vector B. Direction of given vector C. Shape of a given vector D. Magnitude and direction of a given vector
40	If a liquid does not wet a solid surface, the angle of contact is.	A. Less than 90^o B. Greeter than 180 ^o C. 90 ^o D. Between 90 ^o and 180^o
41	Which scientist coined the term quantum mechanics.	A. Kari mark B. Max Born C. Erwin schrodinger D. Issac Newton
42	Efficiency of a Carnot engine depends on	A. Temperature B. Pressure C. Volume D. The nature of working substance
43	The transfer of thermal energy between regions of matter due to a temperature gradient is called.	A. Conduction B. Radiation C. Convection D. Sublimation
44	The main causes of power losses in a generator are.	A. Pulsatng current B. Eddy current C. Magnetic current D. Both B and C
45	Balmer identified the spectral lines in the spectrum of hydrogen in	A. 1785 B. 1885 C. 1936 D. 1966
46	A sonometer or audiometer is a device based on the principle of.	A. Resonance B. Beats C. Overtones D. Harmonics
47	Sunlight can undergo total internal reflection if it enters from	A. Glass to air B. Air to glass C. Air to water D. Water to glass
48	A charge less region which separates p-type and n-type semiconductors in a p-n junction is known as.	A. Polar region B. Null region C. Depletion region D. Neutral region
		A. Audible

49	A pendulum vibrates with a time period of 1 s which range of sound is produced by it	B. Infrasonic C. Ultrasonci D. Super sonic
50	Density of blood a	A. Equal to water B. Greater than water C. Less than water D. zero
51	The permeability of a diamagnetic material is	A. Greater than unity B. Less than unity C. Equal to unity D. Zero
52	Lines of force are imaginary lines drawn so as to be energy point.	A. parallel to equipotential surface B. Normal to the electric field C. Indicative of the position of the nearest source charge D. Tangent to the electric field
53	Positron was discovered by	A. Wilson B. Anderson C. Dirac D. Stefan
54	Which one the following is not a component of a Bipolar junction Transistor	A. Base B. Emitter C. Collector D. Grid
55	If a body of mass 'm' was released in a vacuum just above the surface of a planet of mass M and radius R what will be the gravitational acceleration.	A. GmM/R B. GM/R² C. GM/R D. GM/2R
56	The combined effect of resistance and reactance's in A.C. circuit is called.	A. Resistance B. Conductance C. Choke D. Impedance
57	Why an even Carnot engine Carnot give 100% efficiency.	A. We cannot find ideal sources B. We cannot eliminate friction C. We cannot reach absolute zero temperature D. We cannot remove heat
58	Materials that experience a force from stronger to weaker regions of magnetic field are called.	A. Non magnetic B. Paramagnetic C. Ferromagnetic D. Diamagnetic
59	What will be the frequency it an employ vessel is filled with water.	A. Increases B. Decreases C. Remain unchanged D. Fundamental
60	A sheet of transparent material with fine equality spaced lines ruled parallel on its surface is called.	A. Interferometer B. Grating element C. ruler D. Patch
61	Huygen's concept of secondary waves.	A. Allow us to find the focal length of a thick lens B. Is a geometrical method to find a wave front. C. Is used to determine the velocity of light D. Is used to explain polarization
62	Which part of D.C motor reverses the direction of current through the coil every half cycle.	A. The armature B. The commutator C. the brushes D. The slips rings
63	Which of the following is mechanical property of a material.	A. Strength B. Stiffness C. Ductility D. All of these
64	In a resistor, when base width decreases with increasing Vbc, this phenomenon is called.	A. Tunneling B. Thermal runway C. Pinch off D. Early effect
65	The Rutherford atom according to classical theory is	A. Stable B. Unstable C. Partially stable D. Quantized

66	One radian is equal to.	A. 0.1 Gy B. 0.01 Gy C. 0.001 Gy D. 0.0001 gy
67	Who developed hypothetical heat engine that has the maximum possible efficiency in 1824	A. Saadi carnot B. August Otto C. rudolf Diesel D. Kari Benz
68	The Lenz's law is also a statement of the law of conservation of.	A. Energy B. Mass C. Momentum D. Torque
69	The behavior of the gases that can be easily liquefied is like that of the.	A. Triatomic gases B. Ideal gases C. Van der walls gases D. Dia atomic gases
70	The product of cross sectional area of the pipe and the fluid velocity at any point along the pipe is equal to.	A. Zero B. Flow rate C. A constant D. A varibale
71	In which of the following the speed of sound will be maximum under similar conditions.	A. N2 B. O2 C. CO2 D. H2
72	A resistance is a device which	A. Acids the flow of current is a circuit B. Converts electrical energy to heat C. Is a type of charge pump D. Is like a switch
73	The main advantage of a grating over Young's apparatus is the	A. Sharpness of the bright lines B. Absence of dark fringes C. Absence of bright fringes D. Greater deviation of light
74	If velocity is doubled then	A. Momentum increase 4 time and K.E. increase 2 times B. Momentum increases 2 times and K.E. remains constant C. Momentum increases 2 times and K.E. increases 4 times D. Both momentum and K.E. remain constant
75	A real object paled inside the focus of a convex lens gives	A. Real image but diminshed B. Real image but enlarged C. virtual image but diminished D. Virtual image but enlarged
76	When a body is lifted through a height 'h' the work done on the body appears in the form of.	A. K.E B. P.E C. Heat D. Density
77	What is the effect on the product of resistivity and conductivity if the temperature of a conductor is increased.	A. It decreases B. It increases C. It remains the same D. It may increase or decrease
78	The energy equivalent of 1 kg of matter a	A. 10⁻¹⁵ J B. 1 J C. 10¹²J D. 10¹⁷ J
79	The advantage of electron tube over semiconductor is.	A. _{its efficiency} B. its unlimited type C. Its low consumption power D. That it takes no warming up time
80	Viscosity in fluid refers to	A. The density of a fluid B. the compressibility of a fluid C. Tangential force exerted on solid surface by the flowing fluid D. Normal forces exerted on solid surace by the following fluid
81	Air bubble in water shines because of	A. Reflection B. Refraction C. Diffraction D. Total internal reflection
82	The simple form of particle accelerator is.	A. Cathode ray tube B. Oscillator C. _{Amplifier}

		D. Phase locked loop
83	Which physical properties is most responsible for resonance.	A. Frequency B. Intensity C. Pitch D. Loundness
84	In which of the following eddy current is not used	A. Induction furnace B. Automobile speedometer C. Electromagnetic damping D. X- rays diffraction
85	In which thermodynamic process enthalpy of the system remains constant.	A. Isenthalpic process B. Isolated process C. Isobaric process D. Isochoric process
86	The magnitude of resultant of three force is 3. If its x-component is 2, Y component is 1. Its 2-component will be.	A. 1 B. 2 C. 3 D. 4
87	Which materials have exactly zero electrical resistivity.	A. Metals B. Insulators C. Semi conductors D. Super conductors
88	Which effect explain the frequency shift that occurs when there is motion sound a listener or both relative to the medium.	A. Early effect B. Doppler's effect C. Hall effect D. Zeeman effect
89	Bernoulli's equation is Applica table to points	A. In a steady flowing liquid B. In a streamline C. In a straight line perpendicular to steamline D. In any non viscous liquid
90	A charged capacitor has charge on its	A. Outside surface B. Inner surface C. Surroundings D. Mid point
91	When light emitting diode is forward biased, it emits light of the colour	A. Red B. Yellow C. Green D. All of these
92	The frequency of the fundamental mode of transverse vibration of a stretched wire 1,000 mm long is 256 Hz When the wire is shortened to 400 mm at the same tension	A. 640 Hz B. 680 Hz C. 720 Hz D. 780 Hz
93	What is the term for an motion of charge from one region to another.	A. electric charge B. Electric current C. Electric field D. Electric potential
94	What are the dimensions of coefficient of velocity of	A. [MLT-1] B. [ML-1T-1] C. [ML-2T-1] D. [MLT-2]
95	The Inner electrons in heavy atoms can be disturbed and dislodged by.	A. X rays B. Alpha particle C. Beta particles D. gama particles
96	In projectile motion, the body has	A. One component of velocity B. Two components of velocity C. Three components of velocity D. No component of velocity
97	Which gas strictly obeys gas laws.	A. Hydrogen gas B. Inert gas C. Ideal perfect gas D. Helium gas
98	The ration of intensity of magnetization to the magnetic force is known as.	A. Parmeability B. Magnetic induction C. Magnetic intensity D. Magnetic susceptibility
99	The continuous x rays spectrum is obtained due to	A. Deceleration of impact electrons B. Breaking potential C. Excitation potential D. Ionization potential

100	A pure capacitor is connected in an AC circuit The power factor of the circuit will be.	A. Unity B. Infinity C. 0.5 D. Zero
101	In the experiment of force on a current carrying conductor in a uniform magnetic field the magnitude of force depends upon which factor.	A. Force is inversely proportional to current B. Force is directly proportional to current C. Force is inversely proportional to voltage D. Force is directly proportional to voltage
102	When two identical travelling waves are superposed, velocity of the resultant wave	A. Remains unchanged B. Decreases C. Increases D. Become zero
103	A gas thermometer is more sensitive than a mercury thermometer because the expansion of gas for 1 o/c rise in temperature is.	A. Five times as much as mercury B. Ten times as much as mercury C. Twenty times as much as mercury D. Hundred times as much as mercury
104	The sound velocity in moist air as compared to dry air will be	A. More B. Less C. Same D. zero
105	Beta decay may occur by	A. Beta minus B. Beta Plus C. Electron capture D. All of these
106	An example of forced oscillation is	A. the pendulum of a clock B. The wind screen wiper C. A plucked sonometer wire D. A sonometer wire excited by a tuning fork
107	Lagging of magnetic flux density behind the magnetizing fled is known as.	A. susceptibity B. Diamagnetism C. Hysteresis D. Retentivity
108	The internal energy of an isolated system	A. Is zero B. Keeps on changing C. Remains constant D. Cannot be judged
109	Which of the following is the ideal gas equation.	A. PV -n RT B. P/V = n RT C. V/P = nR/T D. PV = T/nR
110	During the alpha decay process	A. A neutron is emitted B. a electron is emitted C. A helium core is emitted D. A proton core is emitted
111	The variation of focal length of a lens when we pass from the central portion to periphery is called.	A. Coma B. Astigmatism C. Spherical aberration D. Chromatic aberration
112	A device used to determine mass of an isotope quite accurately is known as.	A. Spectrometer B. Mass spectrometer C. Mass detector D. Electronic balance
113	When an obliquely falling ray of light enters from one medium ot another it changes its path this phenomenon is called.	A. Reflection B. Refraction C. Diffusion D. Diffraction
114	The force of friction that comes into action after the motion has started	A. Static friction B. Dynamic friction C. Friction only D. Limiting friction
115	Which term is used for the persistence of sound in a hall.	A. Resonance B. Acoustics C. Symphony D. Reverberation
116	One radian is equl to	A. 57.3 ^o B. 67.3 ^o C. 60 ^o D. 87.3 ^o

117	A mass accelerates uniformly when the resulting force acting on it.	A. is zero B. Is constant but not zero C. Increases uniformly w.r.t time D. Is proportional to the displacement of the mass from a fixed point
118	The charge on an Isolated conductor always lies.	A. Within the conductor B. At the centre of the conductor C. On the surface of the conductor D. Outside the surface of the conductor
119	The static friction is.	A. Always equal to dynamic friction B. Always less than dynamic friction C. Always greater than dynamic friction D. Sometimes greater and sometimes less than dynamic friction
120	A Carnot engine can be 100% efficient of the sink is at.	A. 0 k B. 0 oF C. 0 oC D. 273 K
121	Which analysis is employed to convert a complex sound into notes.	A. Fourier theorem B. Milleman theorem C. Lissajoes theorem D. Demorgan's law
122	Liquids with disordered structure frozen in are an example of	A. Amorphous solids B. Glassy solids C. Crystalline solids D. Polymeric molecules
123	The fact that the edge of a shadow formed by a point source of light shining on an object is not sharp is an example of.	A. Refraction B. Diffraction C. Polarization D. Dispersion
124	A p-type material is formed then a semiconductor is doped with	A. Trivalent impurity B. Tetravalent impurity C. All of above D. A material having excess of free electrons
125	In an A.C. circuit the current.	A. Is in phase with voltage B. Leads the voltage C. Lags the voltage D. Any of these depending upon the circumstances
126	Wave theory of light was proposed by	A. Newton B. Thomas Young C. Maxwell D. Huygen
127	The ratio of the magnitude of charge on one of the two conductors in proximity to the potential difference between the two is called.	A. Inductance B. Reactance C. Resistance D. Capacitance
128	The process of mixing sound waves with carrier waves is known as.	A. Rectification B. amplification C. Modulation D. Demodulation
129	An object at the end of a spring oscillates with SHM of angular frequency 2 rad s-1 What is the period of oscillation.	A. 0.32 s B. 0.50 s C. 0.80 s D. 3.1 s
130	The property of a material to return to it original shape and size on the removal of an external force is called.	A. Stress B. Strain C. Toughness D. Elasticity
131	Induced current in a circuit depends upon	A. The speed with which the conductor moves in the magnetic field B. Resistance of the loop C. Direction of the loop D. Shape of the loop
132	The unit of intensity of sound waves is.	A. W m-1 B. W m-2 C. N m-1 D. N m-2

133	Length of second pendulum is	A. 98 cm B. 99 cm C. 99.2 cm D. 100 cm
134	The SI unit of spring constant is identical with that of.	A. Force B. Pressure C. Surface tension D. Loudness
135	Law of increase of entropy is a result of	A. First law of thermodynamics B. Second law of thermodynamics C. Third law of thermodynamics D. Zeroth law of thermodynamics
136	Which quantity remains fixed in isobars.	A. Mass number B. Atomic number C. Number of neutrons D. Number of protons
137	The SI unit of impulse is.	A. N m B. N s C. Kg ms -1 D. Both b and c
138	A person of height 1.5 m stands 2.0 m in front of a plane mirror How far from the person is her image .	A. 2.0 m B. 3.0 m C. 3.5 m D. 4.0 m
139	The magnitude of the resultant of two equal forces is equal to either to the force What is the angle between the two forces	A. 0 ^o B. 120 ^o C. 60 ^o D. 180 ^o
140	In the circult, the ammeter reading is 0.5 A . If the resistance of the voltmeter is 180Ohm What is the voltmeter rediang.	A. 90 V B. 100 V C. 180 V D. 900 V
141	In the direction indicated by an electric field line.	A. The electric field strength must increases B. The electric field strength must decreases C. The potential must remain constant D. The potential must decreases
142	The thermal inertia of a thermodynamic system is known as its.	A. Entropy B. Enthalpy C. Isothermal conduction D. Adiabatic conduction
143	The resistance offered by one cubic meter of a substance is known as.	A. Reactance B. Conductance C. Conductivity D. Resistivity
144	Photo diodes are used as	A. Optical fibre receivers B. Automatic switching C. Logic circuits D. All of the above
145	When a perfect gas is supposed to expand freely in an isolated vessel the gas has undergone.	A. An increase in pressure B. An increase in temperature C. A change in phase D. A change in entropy
146	Conventionally antilock wise torque is taken as.	A. Zero B. Positive C. Infinity D. Negative
147	In case of longitudinal waves the individual particles of the medium move.	A. In circles B. In ellipses C. Parallel to wave propagation D. Perpendicular to wave propagation
148	Phenomenon of radioactivity is due to disintegration of.	A. Proton B. Neutron C. electron D. nucleus
149	Wave motion in air consist of	A. Longitudinal waves B. Transverse waves C. Seismic waves D. Polarized waves
150	Highly conducting state of matter is	A. Conductors B. Plasma C. Semiconductors

		C. Semiconductors D. Insulators
151	The pressure of a goas is directly proportion to	A. Mean velocity of the molecules B. Mean square velocity of the molecules C. Root mean square velocity of the molecules D. Instantaneous velocity of the molecules
152	The time period of a simple pendulum is independent of its.	A. Length B. Mass C. Acceleration due to gravity D. Restoring force
153	The gas thermometer is taken as the primary standard because.	A. Thermometers are easily reproducible B. Readings can be accurately taken C. No correction are necessary D. It produces he thermodynamic scale
154	The process of combining low frequency signals with high frequency radio waves is called.	A. Modulation B. Resonance C. Fluctuation D. Amplitude
155	Venturimeter is a device used to measure	A. Density of a fluid B. Speed of a fluid C. Pressure of a fluid D. Viscosity of a fluid
156	Which of the following radiations will burn human skin	A. Infrared B. Ultraviolet C. X rays D. Alpha particles
157	Who was the author of Mathematical principles of Natural philosophy.	A. Kepler B. Einstein C. Max Planck D. Newton
158	The relation between horse power and watt is.	A. 1 hp = 546 watts B. 1 hp = 746 watts C. 1 hp = 946 watts D. 1 hp = 1000 watts
159	A negative acceleration does not necessaryimply.	A. Decreasing speed B. An increasing distance C. An increasing speed D. A decreasing distance
160	The binary equivalent of 25 is	A. 111001 B. 11001 C. 1001 D. 10101
161	In which one of the following states molecules do net leavt their position.	A. Solid B. Liquid C. Gas D. Plasma
162	The most convenient unit for energy at the atomic level is.	A. Joule B. Watt second C. Newton metre D. Electron volt
163	A perfect gas is one whose	A. Molecules are masless B. Molecules are energetic C. Molecules are perfectly elastic D. Molecules are at rest
164	The scalar product of two vectors in negative when	A. Vectors are parallel B. Vectors are antiparallel C. Vectors and perpendicular D. Vectors are parallel with same magnitude
165	Which onw of the following is deflected by an electric field.	A. Alpha particles B. Gama rays C. Neutrons D. x rays
166	In electric magnetism , the additional fundamental quantity that is chosen as a basic unit is called.	A. Electric potential B. Electric fierce C. Electric charge D. Magnetic force
		A. Weaker and long range

167	Nuclear force as compared to electrostatic force is.	A. Weaker and long range B. Weaker and short range C. Stronger and longer range D. Stronger and short range
168	The gravitational force between two bodies does not depends upon.	A. The product of their masses B. Their separation C. The sum of their masses D. The constant of gravitation
169	Thermodynamics concern its primary with the	A. Measurement of quantity of heat B. Physical effects of temperature changes C. Conversion of heat into other energy forms D. Behavior of gases
170	The path of projectile is maximum at	A. Point of lauch B. Highest point C. Point of landing D. Both a and c
171	The susceptibility of a paramagnetic material is	A. negative B. Positive C. Zero D. Infinity
172	Temperature changes when two balls collide which one of the following is conserved.	A. Angular momentum B. linear momentum C. Velocity D. Kinetic energy
173	Compton's effect was presented in.	A. 1921 B. 1923 C. 1931 D. 1933
174	The image formed by a projector is	A. Real, inverted and enlarged B. Real, upright and enlarged C. Real ,inverted and diminished D. Virtual, upright and diminished
175	Which statement for geostationary orbit is false.	A. A geostationary orbit must be directly above the equator B. All satellites in a geostationary orbit must have the same mass C. The period of a geostationary orbit must be 24 hours D. There is only one possible radius for geostationary orbit
176	A body is said to be in complete equilibiurm when	A. It attains translational equilibrium B. Vector sum of all the forces is zero C. Vector sum of all the torques is zero D. Vector sum of all the torque and forces is zero
177	The decimal equivalent of 1111 is	A. 5 B. 10 C. 15 D. 120
178	Rainbows and mirage are formed by	A. Reflection only B. Refraction only C. dispersion only D. A combination of refraction, total internal refraction and dispersion
179	Which of the following electron wavelength is used in electron microscope.	A. Short B. Extremely short C. Large D. Moderate
180	Current gain of a CE amplifier is 50, ITS hfe is about	A. 25 B. 50 C. 75 D. 100
181	The process in which pressure of the system remains constant.	A. Isothermal process B. Isochoric process C. Isobaric process D. Adiabatic process
182	The most common trivalent impurities are	A. Boron , indium B. Arsenic, indium C. Arsenic, Antimony D. Aluminium, Boron

183	What is the cause of mirage in desert areas.	A. Refractive index of atmosphere increases with height B. Refractive index of atmosphere decreases with height C. Refractive index of atmosphere remains constant D. Scattering
184	Beats occur due to	A. Reflection B. Refraction C. interference D. Diffraction
185	who discovered taht mass and energy are forms of each other.	A. Issac Newton B. Albert Einstein C. Galileo D. Khawarizmi
186	An ice making machine extracts energy at the rate of 500 W The specific latent heat of fusion of ice is 300 kj kg-1. How long does it take to freeze 2 kg of water at 0 oC.	A. 120 s B. 150 s C. 1200 s D. 1500 s
187	Choose the one which acts as single inverter.	A. Common emitter B. common collector C. Common base D. Diode
188	Inductance are measured in	A. Coulombs B. Volts C. Henrys D. Farads
189	A body of mass 2 kg is suspended in a elevator by means of a spring The balance reads its weight when the elevator moves up with an acceleration of 5 m s-2 as.	A. 9.8 N B. 29. 6 N C. 26.5 N D. 30.5 N
190	When a ray light is incident at anacute angle to the boundary of the media the refracted ray.	A. Bends away from the normal B. Bends towards the normal C. Remains undedicated D. Is totally reflected
191	The loudness of a sound depend on its	A. Frequency B. Amplitude C. Speed D. Both a and b
192	The inductance in a coil plays the same role as	A. Inertia plays in machans B. torque plays in machines C. Energy plays in machines D. Momentum plays in machines
193	A girl standing 150 m in front of tall building fires a pistol A boy standing 350 m behind her hears two bangs 1 s apart from this information what is the speed of sound in air.	A. 150 m s-1 B. 300 m s-1 C. 280 m s-1 D. 330 m s-1
194	Which type of image is produced by the converging lens of human eye if it views a distant object.	A. Real, erect, same size B. Real, inverted, diminished C. Virtual, erect, diminshed D. Virtual, inverted, magnified
195	The exitance of more than one distinct state with the same energy is called.	A. Exigency B. Degeneracy C. Normally D. Emergency
196	Two simple pendulums of the same length but having different masses	A. Have different frequencies B. Will have period proportional to their masses C. Will have periods independent of their length D. Have the same period
197	Which of the following should not change in isothermal operation.	A. Heat constant B. Volume C. Pressure D. Temperature
198	A gallium atom is.	A. Monvalent B. Diavalent C. Trivalent D. Pentavalent
199	The force that moves a rocket or a plane forward is called.	A. Lift B. drag C. Thrust

		D. Turbulence
200	Beats are the result of.	A. Interference B. Doppler's effect C. Ultrasound D. Polarization
201	The capacity of a spherical conductor is numerically equal to its.	A. Surface area B. Diameter C. Radius D. Volume
202	In onw cycle of a steam engine there are how many dead centres.	A. 1 B. 2 C. 3 D. zero
203	Which quantity has different base units from the other three.	A. Density x volume x velocity B. Rate of change of momentum C. The Young's modulus x area D. Weight
204	What is the about the electric field inside a metallic sphere.	A. It is zero B. It varies with the shape of the conductor C. It depends on the charge there D. It does not charge the metallic sphere
205	In an induction coil, the secondary emf is.	A. Zero at the break of the circuit B. Zero during make of the circuit C. Very high during make of the circuit. D. Very high during break of the circuit
206	The quality of a note	A. Decreases with loudness B. Varies directly as its pitch C. Varies inversely as its pitch D. Depends upon the overtones
207	Mostly widely used types of gas LASER are.	A. Neon B. Argon ion C. Helium D. All of these
208	The electric bulb does not obey Ohm's law because.	A. Current changes B. Resistance changes C. Heat is produced D. All of these
209	The SI unit of equivalent dose is	A. Seivert B. Gray C. Radian D. Rem
210	Half life and mean lifetime of a radioactive element are.	A. Equal to each other B. Inversely proportional to each other C. Directly proportional to each other D. Not related to each other
211	Faraday's law deals with	A. Induced emf B. Motional emf C. Induced current D. Electric current
212	On reflection of light from a source there occurs a change in	A. Wavelength B. Velocity C. Period D. Frequency
213	In Isochoric process there is no	A. Work done B. Internal energy change C. Volume change or work done D. Heat exchanged
214	At low frequency the value of resistance of certain capacitors is.	A. small B. Large C. Moderate D. Unmeasurable
215	One of the device to produce plane polarized light is.	A. A prism B. A bi prism C. A plane mirror D. A nicol prism
		A. At high voltage a.c is safer than d.c

216	Electrical energy is transmitted at high alternating voltages which of the following is not a valid reason for doing this.	B. For a given powers, there is lower current with higher voltage. C. There is a smaller energy loss at high voltage and lower current D. The transmission lines can be thinner with a lower current.
217	An object travels at constant speed around a circle of radius 1.0 m in 1.0 s the magnitude of its acceleration is.	A. zero B. 1.0 m s-2 C. 2 m s-2 D. 4 pi2 m s-2
218	Pure silicon has valence electrons	A. 1 B. 2 C. 3 D. 4
219	A hydrometer floats to a particular level in sea water in fresh water it.	A. Floats lower B. Sinks completely C. Floats higher D. Floats at the same level
220	For polarization , the direction of oscillation has to be perpendicular to the direction of travel sound waves are longitudinal waves so they cannot be.	A. Reflected B. Deflected C. Diffracted D. polarized
221	When a man jumps off the ground, the reaction force of the ground is.	A. Equal to the weight of the man. B. Smaller than the weight of the man C. Greater than the weight of the man D. Zero
222	A torch bulb uses a 3 V supply and makes a current of 0.2 A It is switched on for one minute How much electrical energy is used.	A. 0.6 J B. 12 J C. 24 J D. 36 J
223	Plane polarized light can be produced by	A. Reflection B. Refraction C. Scattering of light D. All of these
224	Radioactivity is the phenomenon associated with the.	A. Transition of radiowaves B. production of alpha particles only C. Decay of nucleus D. Reception of radio waves
225	Which scientist made the fist successful terrestrial measurement of the speed of light	A. Isaac Newton B. Ole Romer C. Armand Fizeace D. Albert Michelson
226	The most familiar example of radioactive dating is.	A. Nitrogen dating B. Carbon dating C. Hydrogen dating D. Helium dating
227	On what factor the internal energy of a thermodynamic system depend upon.	A. History B. State C. Process D. Surroundings
228	As a result of modulation, the resultant wave is called.	A. Carrier wave B. Modulated carrier wave C. Matter wave D. Energetic carrier wave
229	In a diffraction pattern, the width of any fringe is.	A. Directly proportional to slit width B. Inversely proportional to slit width C. independent of slit width D. Zero
230	Which one fo the following is based on the diffraction and repulsion of electric charge.	A. Capacitor motor B. Transformer C. Induction motor D. synchronous motor
231	At room temperature the p.d. between the two sides of depletion region for germanium is of the order of.	A. 0.3 V B. 0.5 V C. 0.7 V D. 0.9 V
232	who gave the law of equipartition.	A. Maxwell B. Carnot C. Claussius D. Boltzmann
	The loss of mass in a m.u in a nuclear change can be calculated from energy involved in	A. Dividing by 931 B. Multiplying by 931

233	The loss of mass in a.m.u in a nuclear change can be calculated from energy involved in MeV by	B. Multiplying by 931 C. Diving by 391 D. Multiplying by 391
234	Which of the following is heat transfer by means of the emission or absorption of electromagnetic radiation such as sunshine.	A. Conduction or diffusion B. Convection C. Radiation D. Mass transfer
235	A body attached to a spring is pulled to a distance of 20 cm If the value of spring constant is 48 N m-1, the amount of force applied will be.	A. 4.8 N B. 9.6 N C. 96 N D. 192 N
236	Which of the following is an example of an irreversible process.	A. Isothermal and adiabatic process B. Melting of ice C. Work done against friction D. Pettier effect
237	If the resultant of all the forces acting on a body is zero then the body is in	A. Translation equilibrium B. Rotational equilibrium C. Equilibrium D. Dynamic equilibrium
238	A thin layer of oil the surface of water looks coloured due to.	A. Pillarization of light B. Different elements present in the oil C. Interference of light D. Transmission of light
239	The back ground radiation in the atmosphere on the average is	A. 0.5 Sv per year B. 1.0 Sv per year C. 1.5 Sv per year D. 2.0 Sv per year
240	If a conductor sun infirmly stretched so that its length is increased in timed, then its resistance becomes.	A. n times the original resistance B. 1/n times the original resistance C. n2 times the original resistance D. n3 times the original resistance
241	The value of mutual inductance can be increased by	A. Decreasing number of turns in the coil B. Increasing number of turns in the coil C. Winding the coil on china clay D. Winding the coil on wooden frame
242	What is the SI unit for thermal conductivity.	A. W m-1 K-1 B. W m-2 k-2 C. W m-3 k-1 D. J kg -1 k-1
243	A pencil dipped partially into water appears bent because of.	A. Reflection of water surface B. Diffraction of water surface C. Refraction of water surface D. Water is a fluid
244	An emitter follower has	A. High input impedance and high output impedance B. High input impedance and low output impedance C. Low input impedance and low output impedance D. Low input impedance and high output impedance
245	A system of the equal and opposite point charges separated by a small distance is called.	A. A capacitor B. A dipole C. An iinductor D. A di electric
246	As the mass number increases, the binding energy per nucleon in a nucleus	A. Increases B. Decreases C. Remain constant D. Varies in a way that depends upon A
247	The heat required to sublime one mole of the substance at standard temperature and pressure is called.	A. Latest heat B. Specific heat C. Heat of sublimation D. Heat capacity
248	The impedance of the circuit at resonance frequency is	A. Minimum B. Maximum C. Zero D. Infinity
249	The energy transmitted per second though unit are held perpendicular to the direction of propagation of the wave is called.	A. Intensity of sound B. Pitch of sound C. Loudness of sound

		D. Quality of sound
250	Three tuning forks of frequencies 400 Hz. 401 Hz and 402 Hz are sounded together The frequency of beats per sound is.	A. 0 B. 1 C. 2 D. 3
251	In heavy elements of the periodic table the number of neutrons than protons are.	A. Lesser B. Greater C. Equal D. Undetermined
252	The law of inertia was first time formulated by	A. Galileo B. Newton C. Kepler D. Planck
253	The Step up transformer	A. Increase the input current B. Increases the input voltage C. Has more turns in the primary coil D. Has less time in the secondary coil
254	What would be the colour of sky n the absence of atmosphere.	A. Blue B. Indigo C. Red D. Black
255	A converging mirror with a radius of 20 cm creates a real image 30 cm from the mirror What is the object distance.	A. -5.0 cm B. -7.5 cm C. -15 cm D. -20 cm
256	The magnetic induction is also called the	A. Magnetic intensity B. Magnetic flux C. Magnetic flux density D. Magnetic magnetization
257	How power factor of a circuit can be improved.	A. Using capacitors B. Using cokes C. Using resistors D. All of these
258	An AND gate is.	A. Equivalent to a series switching circuit. B. Equivalent to a parallel switching circuit C. Equivalent ot universal gate D. A reciprocal of NAND gate
259	The power of convex lens of focal length 50 cm will be	A. 1,0 dioptre B. 2.0 dioptre C. 4.0 dioptre D. 5.0 dioptre
260	The energy in electron volts necessary to remove the most loosely bound electron from the neutral atom is known as.	A. Faraday energy B. Wave number C. Ionization Potential D. Excitation potential
261	If a force of 50 N is acting along x axis , then its component along y-axis will be.	A. Zero B. The same C. Of the half magnitude D. Of the double magnitude
262	Which of the following SI units is not named after any physicist.	A. Hertz B. Joule C. Volt D. Candala
263	The total gain in entropy of the working substance in a Carnot cycle is.	A. Positive B. Negative C. Infinite D. Constant
264	The speed of the charging or discharging a capacitor depends upon the product of resistance and.	A. Current B. Voltage C. Capacitance D. Potential difference
265	The resistance of a capacitor when it is connected with a battery is.	A. Zero B. Finite C. Infinite D. The same
266	The maximum K.E. with which photoelectrons are emitted depends very strongly on the.	A. Intensity of incident light B. Electric field near the photocathode C. Frequency of incident light

		D. Polarization of incident light
267	When a posirtron is emitted it causes.	A. Mass number to increase by one B. mass number to decrease by one C. Atomic number to decrease by one D. Atomic number to increase by one
268	Which of the given factors is increased in a step down transformer.	A. Voltage B. Current C. Wattage D. Resistance
269	Interference fringe spacing depends on	A. The wavelength of light used B. The distance screen from the coherent sources C. Separation between the sources D. All of the above
270	A newly prepared radioactive nuclide has a decay constant Lamda of 10-6 s-1 What is the approximate half life of the nuclide.	A. 1 hour B. 1 day C. 1 week D. 1 month
271	Which one of the following describes a measure of opposition to alternating current.	A. Electrical impedance B. Capacitance C. Inductance D. Admittance
272	The relation between work function and maximum energy of photo electrons was discovered by.	A. Stefan B. Marely C. Einstein D. Max. Planck
273	The value of magnetic field strength for parament magnets is.	A. Unity B. Infinity C. Zero D. Two
274	The use fulness of x rays is largely due to their	A. Mass B. Density C. Penetrating power D. Rest mass
275	Two charged spheres are separated by 2 mm Which of the following would produce the greatest attractive force.	A. +1 q and + 4 q B. -1 q and -4 q C. +2 q and +2 q D. +2 q and -2q
276	Who originated the idea of heat death of the universe is 1852	A. Lord Kelvin B. James thomson C. John Thomson D. Saadi Carnot
277	Where should be the centre of gravity of a body.	A. It must be within the body B. It must be outside the body C. It may be near but not essentially within the body D. It changes its position after sometime
278	Diffraction is a special type of.	A. Polarization B. Interference C. Dispersion D. Scattering
279	The change in wavelength of an X-ray when scattered from an electron is called.	A. Compton shift B. Doppler shift C. Stefan's law D. Fraunhofer lines
280	When a force of 4 N acts on a body of mass 2 kg for a time of 2 s, the rate of change of momentum is.	A. 2 kg ms -1 B. 4 kg ms-1 C. 8 kg m s-1 D. 16 kg m s-1
281	Hearing damage is possible at sound pressure of	A. 0 dB B. 50 dB C. 130 dB D. 195 dB
282	Wattles current is said to flow when phase angle between virtual current and virtual voltage is	A. 0^o B. 90 ^o C. 180 ^o D. 270^o
283	Which electrical component uses a low current circuit to switch a high current ON or OFF.	A. Capacitor B. Diode C. Reed rely D. Thermistor

284	The energy in an electromagnetic wave is carried in the units called.	A. Protons B. Electrons C. Neutrons D. Nucleus
285	If temperature of the sink is decreased the efficiency of a Carnot engine	A. Increases B. Decreases C. Remains constant D. First increases and thend ecreases
286	Some concept of static electricity were introduced by.	A. Chinese B. Plato C. Thales D. Archimedes
287	If each particle of the fluid passing through a point follows the same path then flow is said to be	A. Regular flow B. Irregualr flow C. Turbulent flow D. Streamline flow
288	The dimensions of universal gravitational constant G are.	A. [MLT-2] B. [ML -2T-2] C. [M-1L2T-2] D. [ML-1T-1]
289	The maximum distance between an object and its real image in case of convex lens is	A. f B. 2f C. 2.5 f D. 4 f
290	The power of convex lens is 10 d. At what distance the 3 times larger image is formed.	A. 9.6 cm B. 2.3 cm C. 13.3 cm D. 17.6 cm
291	The property of an object that causes it to create a magnetic field in opposition to an externally applied magnetic field is.	A. Paramagnetism B. Diamagnetism C. Ferromagnetism D. Demagnetism
292	On which characteristics the loudness of sound pends upon.	A. Pitch B. Speed C. Wavelength D. Amplitude
293	For an electron or position the rest mass energy is equal to.	A. 0.21 MeV B. 0.51 MeV C. 1.51 MeV D. 1.21 MeV
294	If the base emitter junction is forward biased and base collector junction is reverse biased the BJT is in.	A. cut of mode B. Amplification mode C. Saturation mode D. Inversion mode
295	The number of electrons in U nucleus are.	A. 92 B. 235 C. zero D. 143
296	When of the following colours scatters minimum.	A. Blue B. Violet C. Yellow D. Red
297	Which of the following statement is correct for a particle moving in a horizontal circle with constant angular velocity.	A. The linear momentum is constant but the K.E. varies B. The K.E. is constant but the linear momentum varies C. Both K.E. and linear momentum are constant D. Both speed and linear velocity are constant.
298	Who discovered a relation between electric and magnetic field.	A. Hans Christian Oersted B. Michelson Faraday C. Lenz D. Hertz
299	Polaroid's were invented in	A. 1787 B. 1887 C. 1897 D. 1929
300	Radioactive substances do not emit	A. Alpha particles B. Beta particles C. Gama rays

		D. Neutrons
301	A fluid is said to be ideal if it is	A. Non viscous B. Non viscous and incompressible C. Non viscous and with steady flow D. Non viscous incompressible and has steady flow
302	In a compound microscope magnification will be large if focal length of eyepiece is	A. Large B. small C. Equal to that of the objective D. Larger than that of the objective
303	For D.C. circuit the resistance can be taken as impedance with zero.	A. Volt B. Ampere C. Phase angle D. Watts
304	The ration of Universal gas constant and Avogadro's number is called.	A. Equilibrium constant B. Velocity constant C. Boitzmann's constant D. Gravitational constant
305	On which factor cut off wavelength of X-rays coming from a Coolidge tube depends upon.	A. Target material B. Accelerating voltage C. Filament temperature D. Separation between target and the filament
306	If two non zero vectors are perpendicular to each other than their scalar product is equal to	A. 1 B. -1 C. 0 D. infinity
307	The direction of electric field line surround the test charge -q id	A. Parallel B. Perpendicular C. Radially outward D. Radially inward
308	Total internal reflection occurs when the angle of incidence is.	A. Greater than the angle of refraction B. Equal to the critical angle C. Greater than the critical angle D. Greater than 45^o
309	Which quantity has different units from the other three.	A. Density x volume x velocity B. Rate of change of momentum C. Young's modulus x area D. Weight
310	Which of the following is an example of negative work.	A. a thrown up cricket ball B. Grass mower C. A car on road D. Bucket in the well
311	The band width of an audio amplifier is.	A. 10 Hz to 10 kHz B. 20 Hz to 54 Hz C. 20 Hz to 20 kHz D. 20 Hz to 60 kHz
312	Keliner or achromat eye piece consist or	A. Two plano convex lenses with same focal length B. Two sets of doublets C. An achromatic doublet D. A spherical doublet
313	When a newton's right interference pattern a viewd from above by means of reflected light , the central spot is	A. Multicoloured B. Alternately white and black C. Bright D. Dark
314	Besides U^{235} what else is needed for making as atomic bomb.	A. Electons B. Protons C. Neutrons D. Photons
315	The are between the velocity time graph and the time axis is numerically equal to.	A. Distance moved by the object B. Speed of the object C. Velocity of the object D. Acceleration of the object
316	What should be the shape of an ideal thermometer.	A. Sphereical B. Cubical C. Cylindrical D. Rectangular
317	The point midway between the lens surface on its participial axis	A. Optical centre B. Principal focus C. Focal plane

		D. Focal length
318	Abu abdullah ibn Jabir Al battani was the greatest	A. Philospher B. Mathematician C. Astronomer D. Palmist
319	The SI unit of radioactivity is.	A. Becquerl B. Curie C. Joule D. rutherford
320	The sum of the positive and negative peak values is known as.	A. Peak value B. Average value C. Instantaneous value D. Peak to peak value
321	The velocity of sound will be greater in.	A. Air B. Water C. Solids D. Vacuum
322	In four stroke cycle the crank makes	A. One complete revolution B. Two complete revolutions C. three complete revolutions D. Four complete reveolutions
323	There are how many modes of operations of a BJT.	A. 2 B. 3 C. 4 D. 5
324	The converse of pair production is	A. Annihilation of matter B. Materialization C. Compton effect D. Photo electric effect
325	The angular frequency time period and frequency in SHM not depend upon.	A. Mass B. Force constant C. Amplitude D. Restoring force
326	The fundamental frequency of a sound source is 256 Hz. What is the frequency of the first harmonic.	A. 64 B. 128 C. 256 D. 512
327	A longitudinal sinusoidal wave has a wavelength of 1 cm and a period of 2s. Its wave velocity is.	A. 50 cm s-1 B. 0.00t m s-1 C. 100 cm s-1 D. 5 m s-1
328	The weight of a man in an elevator moving down with an accelerating of 9.8 m s-2 will be come	A. Half B. Zero C. 9.8 N D. Double
329	A cup of coffee at 80 ^{O}C is left to cool to 30 oc if the heat capacity of the cup and coffee is 2.0 kJ k-1 how much heat is released during the cooling.	A. 0.04 kJ B. 100 KJ C. 60 kJ D. 160 kJ
330	Which of the following gases has the maximum rms speed at STP.	A. O2 B. H2 C. N2 D. CO2
331	The dispersive power of a grating is	A. Light used B. Separation of lines C. Frequency of light used D. Independent of wavelength
332	Which of the following material could be used for a high vacuum, high voltage tube.	A. Thoriated tungsten B. Tungsten C. Copper D. Cesium
333	A force of 10 N is acting along z-axis, its component along x -axis and y-axis is	A. 2 N , 8 N B. 3 N, 7 N C. 5 N each D. Zero
334	The electric heater takes a current of 4 A from a 250 V supply . How long would it take the heater to convert 400,000 J of electric energy.	A. 100 s B. 200 s C. 400 s D. 750 s
		A. Faraday's law

335	The direction of induced emf during electromagnetic induction can be determined by making use of.	B. Ampere;s law C. Lenz's law D. Laplace law
336	Which one of the following has the largest wavelength.	A. x rays B. Infrared rays C. Visible light D. Radio waves
337	Newton's rings are experimentally derived from the phenomenon of.	A. Polarization of light B. Resolution of light C. Interference of light D. Diffraction of light
338	The picture to be transmitted must be scanned because in T.V transmission light wave are first changing into.	A. sound wave B. Electric fluctuations C. Magnetic fluctuations D. Signals
339	Linear acceleration of a point moving in a circle of radius 30 cm with angular acceleration of 0.5 rad s-2 is	A. 1.5 cm s-2 B. 2.5 cm s-2 C. 10 cm s-1 D. 15 cm s-2
340	The magnetic force is simply a	A. Reflecting force B. Deflecting force C. Restoring force D. Gravitational force
341	Which of the following is the most commonly used regions of operations for a transistor.	A. Cut off B. Saturation C. Active D. All of these
342	If a resistance is connected in parallel with a galvanometer the resulting instrument is called.	A. A voltmeter B. An ammeter C. A wattmeter D. A potentiometer
343	The cathode ray oscilloscope is used	A. For viewing the wave shape of rapidly changing electric current B. As voltmeter C. For measuring time intervals between electricalimpulses D. All of the above
344	The direction of induced e.m.f in a circuit is in accordance with conservation of.	A. Mass B. Charge C. Momentum D. Energy
345	Why does a transformer have a core made of iron.	A. Iron has a high melting point B. Iron is a magnetic material C. Iron potential and high current D. Iron is a conductor of electricity
346	Why is an oxide coated filament used in vacuum tube.	A. It has a longer lime B. Irt can with stand high C. It emit electrons at low temperature D. It reduces the effect of space charge
347	An electric lamp use energy at the rate of 46 W on a 12 V supply. How much charge passes through the lamp in 2s.	A. 0.15 C B. 0.50 C C. 2.0 C D. 8.0 C
348	The distance between the optical centre and principal focus is	A. Focal plane B. Focal length C. Optical centre D. Principal axis
349	Which of the following is the ability to hold an electric charge in electromagnetism.	A. Resistance B. Impedance C. Inductance D. Capacitance
350	What is the traditional name for a capacitor	A. Choke B. Condenser C. Transformer D. Inductor
351	X-rays travels ins straight line with velocity	A. Less than light B. Greater than light C. Equal to light D. Equal to sound
		A. common Base B. Common Emtter

352	Which of the following configuration of BJTs gives both voltage gain and current gain.	C. Common collector D. All of the above
353	The long distance transmission of electrical energy is done at.	A. High potential and low current B. High potential and highs current C. Low potential and high current D. Low potential and low current
354	The discovery of interference of light was made possible in.	A. 1801 B. 1901 C. 1825 D. 1925
355	Gas exert pressure on walls of the visual because gas molecules.	A. Posses momentum B. Have finite volume C. Collide with each other D. Obey gas laws
356	When a ray of light traveling in a rare medium enters into a denser medium	A. It remains undeviated B. It is reflected back C. It bends towards the normal D. It bends away from the normal
357	Which of the following is a transport optical element with flat polished surfaces that refract light.	A. Monocole B. Axicon C. Prism D. Lens
358	The continuous X rays spectrum is due to an effect.	A. Bremsstrahlung B. Breaking radiation C. Holography D. both a and b
359	In a parallel resonant circuit, at resonance	A. Current is maximum B. Voltage is maximum C. Impedance is minimum D. Impedance is zero
360	The time constant of a RL circuit is.	A. L/R B. LR C. R/L D. L2/R
361	The velocity at which laminar flow changes to turbulent flow is called.	A. Terminal velocity B. Escape velocity C. Critical velocity D. Uniform velocity
362	Which one of the following spectra series is in the ultraviolet region.	A. Lyman series B. Paschen series C. Brackett series D. Plund series
363	An other name for electric P.E per unit charge is.	A. Electric intensity B. Electric field C. Electric potential D. Electric force
364	Which one of the following telescopes has the least length when set for parallel rays.	A. Astronomical telescope B. Galileo's telescope C. Terrestrial telescope D. Reflecting telescope
365	Which of the following thermometers is the most suitable for measuring rapidly varying temperature.	A. Thermocouple thermometer B. Mercury in glass thermometer C. Alcohol in glass thermometer D. Platinum resistance thermometer
366	A mason of 9.8 N weight is climbing on a 20 m high ladder The P.E. of mason at the middle of ladder is.	A. 98 J B. 196 J C. 960.4 J D. 980 J
367	By definition a gas is said to be have undergone adiabatic compressing when	A. No heat exchange occurs between the gas and its surroundings B. The gas is compressed quickly C. The gas is compressed slowly D. The temperature of the gas remains constant
368	Light entering glass will not suffer change in	A. Wavelength B. Direction C. Velocity D. Frequency
369	Monochromatic ight is of single.	A. Frequency B. Wave length C. Amplitude D. Pitch

370	Which of the following pair of physical quantities have the same dimension.	A. Momentum and pressure B. Energy and work C. Linear and angular momentum D. Force and surface tenstion
371	Which of the following detectors can count fast and operate at low voltage.	A. G.M Counter B. Cloud chamber C. Solid state detector D. Bubble chamber
372	The working principal of a photograph enlarger is basically the same as that of a.	A. Camera B. Side projection C. Microsopce D. Telecopse
373	The rms value of emf in a circuit is given by a factor of.	A. 0.637 B. 0.7 C. 0.707 D. 1.11
374	Why danger signals are made red.	A. Our eyes are more sensitive to real colour B. Red colour has minimum scattering C. Red colour has maximum scattering D. Red colour has maximum frequency
375	The binding energy to pull the deuterium H apart into a proton and a neutron is equal to.	A. 1.22 MeV B. 2.22 MeV C. 3.22 Mev D. 4.22 MeV
376	The specific heat of all gases increases with temperature at high temperature decreases at low temperature expectation is	A. Oxygen gas B. Nitrogen gas C. Mono atomic gas D. Dia atomic gas
377	The conductivity of a conductor is independent of the	A. Electric charge B. Electric potential C. Electric field D. Internal resistance
378	Which of the following factors determines the resolving power of an instrument.	A. magnification B. Total length of objective C. Diameter of objective D. Refractive index of objective
379	The absorption of X-rays in a given material follows.	A. A parabola path B. Is straight line C. An exponential curve D. A circle
380	In simple harmonic motion we have the conservation of.	A. K.E. B. P.E C. Total energy D. Electrical energy
381	A particle executing simple harmonic oscillations of frequency 100 Hz has an amplitude of 0.1 cm The velocity amplitude of the particleis.	A. 20 micro cm s-1 B. 10 micro cm s-1 C. 20 cm s-1 D. 19 cm s-1
382	Thermocouple is used for	A. Converting atomic energy into heat energy B. Measure the radiant energy C. Storing the heat energy D. Measuring current
383	Magnetic field does not cause deflection in	A. Alpha particle B. Beta minus particles C. Beta plus particles D. Gama rays
384	Which of the following phenomenon gives evidence of the molecular structure of mater	A. Evaporation B. Diffusion C. Brownian movement D. All of the above
385	Two light waves which are not coherent cannot produce.	A. Interference B. Diffraction C. Reflection D. Dispersion
386	The central ring is bright in case of Newton's rigs produced by	A. Reflection B. Wedges C. Refraction

		D. Transmission
387	In order of a cyclic heat engine operating between two heat reservoirs to be as efficient as a Carnot engine. It must be.	A. A gas engine B. Adiabatic C. Reversible D. A refrigerator
388	The maximum stress a solid material can sustain with out undergoing permanent deformation is called.	A. elastic limit B. Plastic C. elastic deformation D. Plastic deformation
389	Which of the following is a set of supplementary units.	A. Radian and steradian B. Radian and mole C. Steradian and candela D. Radian and kelvin
390	The minimum velocity needed to put a satellite into the orbit	A. Terminal velocity B. Escape velocity C. Critical velocity D. Linear velocity
391	The spacing of electric field lines between two identical point charges of opposite signs	A. Is not indication of the field direction B. Is not dependent on the magnitude of the charges C. Is an indication of the field strength D. Is large when the charges are very large
392	A concave mirror is used to form an image of the sun on a white screen IF the lower half of the mirror were covered with an opaque card the effect on the image on the screen would be.	A. Negligible B. To make the image less bright than before C. To make the upper half of the image disappear D. To make the lower half of the image disappear.
393	Which of the following is not necessary for work to be done.	A. A constant force B. An applied force C. A displacement D. Force component along the displacement
394	The Circular motion of a particle with constant speed is.	A. Periodic and SHM B. Periodic but not SHM C. linear and SHM D. Neither periodic nor SHM
395	Work function is generally expressed in.	A. Electron volt B. Joules C. Newtons D. Gauss
396	Which quantity is common for systems in thermal equilibrium.	A. Heat B. Temperature C. Momentum D. Specific heat
397	By placing soft iron inside a coil	A. Increases the magnetic flux B. Decreases the magnetic flux C. Creates no change in magnetic flux D. Decreases the diameter of the core
398	The magnitude of the instantaneous velocity is called the.	A. _{Displacement} B. Speed C. Acceleration D. Length
399	Which material has the greatest di electric constant.	A. Mylar B. Glass C. Germanium D. Water
400	What is the represented by the area inside the Carnot cycle.	A. Heat taken to increase the body temperature. B. Energy loss due to leakage C. Useful work done D. Heat rejected by the system
401	Which kind of thermodynamic process is defined as with no heat transfer into or out of a system i.e. Q =0	A. Isobaric process B. Isochoric process C. Isothermal process D. Adiabatic process
		A. Low pressure and high temperature

402	Real gases obey gas laws only at	B. High pressure and low temperature C. High pressure and high temperature D. Low pressure and low temperature
403	A force applied at centre of mass of a body	A. Does not produce any torque B. Produces torque C. Produces acceleration D. Produce couple
404	When a vector is multiplied by a negative number its direction.	A. Remains unchanged B. Changes by 180 ^o C. Becomes horizontal D. Vertical to each other
405	Which type of image is formed by a concave lens on a screen.	A. Inverted and real B. Inverted and virtual C. Upright and real D. Upright and virtual
406	The venturimeter is an instrument used for measuring the	A. Viscosity of a liquid B. Flow speed of a liquid C. Compressibility of a fluid D. Specific gravity of a liquid
407	The temperature of a certain substance in Celsius scale of temperature is 800 ^{O}C in Kelvin scale it is.	A. 173 K B. 931 K C. 1073 K D. 1193 K
408	When speed of a moving body becomes double.	A. Its K.E. is doubled B. Its acceleration is doubled C. Its P.E. is doubled D. Its momentum is double
409	The first measurement of the force between electric charges was made in.	A. 1684 B. 1784 C. 1864 D. 1874
410	The working of cloud chamber is based in the presence of.	A. Super heated vapours B. Liquid C. Super saturated vapors D. Unsaturated vapours
411	Which of the following scientists is known for his exceptional work in the field of optics.	A. Albert Einstein B. Issac Newton C. Ibn al Haithem D. Alberuni
412	The number of 0.0001 is abbreviated correctly by	A. 1 x 10⁴ B. 10⁻³ C. 10⁻⁴ D. 0.1 x 10⁴
413	The SI unit of torque.	A. kg m2 B. kg ms-2 C. kg m2 s-2 D. kg ms -1
414	An important application of the semi conductor is the	A. Vacuum tube B. Fluroescent tube C. Copper oxide rectifier D. Battery
415	What invention is generally referred to as the first capacitor.	A. Mason Jar B. Kleist Jar C. Layden Jar D. Ohm Jar
416	Why choke coil is used in an AC circuit.	A. To decrease D.C. B. To increases A.C. C. To decreases A.C D. To increase D.C
417	Velocity of sound in any medium deepness upon.	A. Elasticity B. Density C. Volume D. Mass
418	A resistor connected to a battery is heated due to current passing through it. Which of the following quantity does not change.	A. Resistivity B. Resistance C. Number of free electrons D. Drift velocity
419	When the deforming force applied on a body produces change in volume then it is said to be	A. Tensile stress B. Compression stress C. Shear stress D. Shear modulus

420	The mass of an helium nucleus is equal to.	A. 2.0015 u B. 3.0015 u C. 4.0015 u D. 5.0015 u
421	When 5 C of charge flows through a particular resistor 10 J of energy is converted What is the p.d. across the resistor.	A. 0.5 V B. 2.0 V C. 15 V D. 50 V
422	Who discovered a phenomenon of thermos electricity.	A. Peltier B. Joule C. Seeback D. thomson
423	An Alpha particle is the same as	A. A helium nucleus B. A high speed electron C. A hydrogen nucleus D. Electromagnetic radiation of short wavelength
424	What is the voltage a 6 Mega resistor when 3 A of current passes through it.	A. 2 V B. 9 V C. 18 V D. 36 V
425	halls fall faster than rain drops due to their	A. Grater size B. Greater mass C. Greater area D. Structure
426	What is the energy equivalent to amu in Me V	A. 0.931 MeV B. 9.31 MeV C. 93.1 MeV D. 931 MeV
427	the gain of an amplifier is independent of	A. The two externally connected resistances B. What is happening inside the amplifier C. Internal structure of the amplifier D. All of the above
428	A ball is thrown straight up when the ball reaches the highest point.	A. Both is velocity and acceleration are zero B. In velocity os zero but acceleration is not zero. C. It acceleration is zero but velocity is not zero. D. Neither velocity nor acceleration is zero.
429	The law of equation of energy is applicable to the system whose constituents are.	A. At rest B. In orderly motion C. in random motion D. Moving at constant speed
430	The electrons behave as wave because.	A. They can be diffracted by a crystal B. They can be defecting by magnetic field C. They can be deflecting by electric field D. they can produce ions in gases
431	The diffraction of light was discovered by	A. Newton B. Young C. Francesco Grimaldi D. Hertz
432	The magnitude of the resultant of two forces may be increased by	A. Increasing the angle between them B. Decreasing the angle between them C. Drawing the parallelogram to represent them D. Drawing the force perpendicularly
433	A wire of 5 m length carries a steady current if the field inside it is 0.2 v m-1 then the potential difference will be.	A. 0.1 V B. 0.5 V C. 1 V D. 5 V
434	A direct vision spectroscope is better than a prism spectrometer because it helps in	A. Observing the spectrum without a source B. Observing the spectrum perpendicular to a source C. Observing the spectrum in line with the source D. all of the above

435	A rod of refractive index 1.42 is immersed in a liquid of refractive index 1.42 the rod will	A. Become invisible B. appear slightly bent C. Appear slightly raised D. Reduce its refractive index
436	The doped semi conductor materials are called	A. Pure semi conductors B. Poor semi conductors C. Super conductors D. Extrinsic semiconductors
437	A fixed point inside the lens through which a ray of light does not change its path is called.	A. Pole B. Focus C. Centre of curvature D. Opticla centre
438	Good acoustic implies	A. Obtaining as much reverberations as possible B. Making the reverberation as small as possible C. Obtaining the optimum of reverberations D. Eliminating reverberations
439	Which of the following devices can be used to produce both transvers and longitudinal waves.	A. A string B. A ripple tank C. a helical spring D. A turning fork
440	Which vector can be used to locate the centre of mass of a collection of particles.	A. Null vector B. Unit vector C. Position vector D. Distance vector
441	A shell explodes and many pieces fly off in different directions, which of the following is conserved.	A. Momentum B. K.E. C. Momentum and K.E D. Neither momentum nor K.E.
442	The ratio of inertial mass to gravitational mass is.	A. 1 B. 0.5 C. 2 D. 3
443	At absolute zero of temperature.	A. The molecular energy is zero B. Molecules have translational K.E C. Molecules have rotational K.E. D. Molecules have maximum energy
444	In any fluid the effect of decrease in pressure with the increase in speed in a horizontal pipe is known as	A. Bernoulli's effect B. Venturi effect C. Torriculli's effect D. Shift effect
445	The basic quantity used to describe the state of magnetization of a substance is the	A. Magnetic strength B. Magnetic susceptibility C. Magnetic moment D. Magnetic moment per unit volume
446	The circuit of full wave rectification consists of	A. Only one diode B. Two diodes C. Three diodes D. Four diodes
447	What would be the magnitude and direction of acceleration which would made the spring balance reading zero.	A. Zero B. 1 m s-2 upward C. 9.8 m s-2 upward D. 9.8 m s-2 downward
448	The relation between angle of incidence and angle of refraction is known as.	A. Snell's law B. Refractive index C. Index of refraction D. All of the above
449	92.65 is round off as	A. 92.6 B. 93.00 C. 92.7 D. None of these
450	The specific heat of liquid	A. Decreases with temperature B. Increases with temperature C. Remains constant with change in temperature D. Increases with pressure
451	A Carnot engine has the same efficiency between (i) 100 K and 500 K and ii) T and 900 K What will be T.	A. 90 K B. 100 K C. 180 K D. 200 K

452	Which one of the following is a neutron absorber	A. Pb B. Cd C. Cu D. Ag
453	The law of motion and gravitation were introduced by.,	A. Albert Einstein B. Issac Newton C. Galileo D. Archimedes
454	The SI unit of angular momentum is.	A. kg m-1 s B. kg m2 s C. kg m s-1 D. kg m2 s-1
455	In scattering experiment which force scatters alpha particle.	A. Nuclear force B. Coulomb's force C. Gravitational force D. Centripetal force
456	Tuning fork is a source of.	A. Heat B. Energy C. Light D. Sound
457	A LASER beam may be used to measure very large distance because it is.	A. Unidirectional B. Coherent C. Monochromatic D. Massive
458	At room temperature the potential difference between the two sides of depletion region for silicon is of the order of.	A. 0.3 v B. 0.5 V C. 0.7 V D. 0.9 V
459	A material in which resultant magnetic moment is zero.	A. Diamagnetic B. Paramagnetic C. Ferromagnetic D. Anti ferromagnetic
460	A mason of 9.8 N weight is climbing on a 20 m high ladder The P.E. of mason at the middle of the ladder is.	A. 98 J B. 196 J C. 960 .4 J D. 1920 .8 J
461	The energy of neutrons obtained during a fission reaction is.	A. 0.1 MeV B. 1 KeV C. 1 MeV D. Zero
462	Which of the following parameters is irrelevant for a fuse wire.	A. Its radius B. Current flowing through it. C. Its specific resistance D. Its length
463	The wavelength is the distance along the line of wave propagation between two successive particles which have equal	A. Velocities B. Phases C. Amplitude D. Displacements
464	A perfect back body	A. Is a perfect absorber of all radiations B. Is a perfect reflector of all radiations C. Is a perfect reflector of visible lights radiations D. Is a brownish object
465	Such substance which undergo plastic deformation until they break are known as.	A. Diatomic substances B. Monoatomic substances C. Ductile substances D. Brittle substances
466	Which of the following materials has highest magnetic suscaptibility.	A. Uranium B. aluminium C. Platinum D. Sodium
467	The velocity of the wave could be increased by	A. Reducing the amplitude B. Decreasing the frequency C. Increasing the period D. Stretching the spring more
468	linear magnification is the ratio between the	A. Distances of object and image from mirror B. Distances of object and image from the focal point

468	linear magnification is the ratio between the	C. Distance of image and object from the mirror D. Distance of image from object and the distance of object from mirror
469	If the resultant of two forces, each of magnitude F have the magnitude F, angle between the forces will be.	A. 30^o B. 80^o C. 90 ^o D. 120 ^o
470	The spectrum of radiation due to transitions between energy levels in an atom, other absorption or emission is called.	A. Atomic spectrum B. Molecular spectrum C. Grating spectrum D. Normal specturm
471	When ever a system is made to complete a cyclic process the work done during the complete cycle.	A. Is zero B. Is negative C. Is positive D. Depends upon the path followed
472	In scientific notation 0.0003 can be written as.	A. 3 x 10⁴ B. 3 x 10⁻⁴ C. 3.0 x 10³ D. 3.0 x 10⁻³
473	Specific heat a different substances varies becouse of	A. Same number of molecules in unit mass B. Different number of molecules in unit mass C. Different K.E. of molecules in unit mass D. Same K.E. of molecules in unit mass
474	A body of mass 3 kg lies on the surface of the table 2 m high it is moved on the surface 4 m the change in P.E. will be.	A. 9.8 J B. 6 J C. Zero D. 329 J
475	X-rays are a part of electromagnetic spectrum and are characterized by frequencies higher that those of.	A. Infrared radiation B. Ultraviolet radiation C. Far ultraviolet radiation D. Far infrared radiation
476	The induced current in a circuit can be increased by	A. Using a strong magnetic field B. Moving the loop faster C. Replacing the loop by a coil of many turns D. All of the above
477	A ray of light from air into glass The angle of incidence is 30o if the refractive index of glass in 1.52 The angle of refraction will be.	A. 16.7 ^o B. 19.3 ^o C. 29.6 ^o D. 39.3 ^o
478	Which one of the following solids exhibits only shot range order.	A. Amorphous solids B. Polymeric solids C. Crystalline solids D. Metals
479	In a simple D.C. motor the direction of current in the motor is reversed every half revolution to keep the motor turning in the same direction which part of the motor does this.	A. Brushes B. Coil C. Commutator D. Poles
480	Which we double the voltage in a simple electric circuit, we double the	A. Current B. Power C. Resistance D. Both a and b
481	If T1 and T2 are source and sink temperature respectively Carnot efficiency is.	A. T1+T2/T1 B. T1-T2/T1 C. T1+T2/T2 D. T1-T2/T2
482	A wave reflected from the boundary of a rarer medium will have phase change	A. 0 ^o B. 60 ^o C. 90 ^o D. 180 ^o
483	A cube with sides 2 cm long is made from a material of density 8 g cm -3 What is the density of the block is.	A. 0.2 g cm-3 B. 0.5 g cm-2 C. 2 g cm-3 D. 5 g cm-3
484	On which of the following parameters capacitance does not depend upon.	A. Area of the plates B. Medium between the plates C. Distance between the plates

		D. Nature of material for plates
485	When a platinum wire is heated of 1600 ^{o}C, it becomes	A. orange B. Cherry red C. Dull red D. White
486	Soap film in sunlight appears coloured due to	A. Dispersion of light B. Diffraction of light C. Scattering of light D. Interference of light
487	In compound microscope image formed by the eyepiece is	A. Real B. Inverted C. erect D. diminished
488	In ideal gas equation PV = nRT , R is	A. Universal gas constant B. Avogadro's number C. Plank's constant D. Gravitational constant
489	Viscosity of fluids with rise in temperature.	A. Increases B. Decreases C. Remains constant D. Vanishes
490	Which of the substances is the lightest one.	A. Copper B. Mercury C. Aluminium D. Lead
491	The mains frequency in Pakistan is	A. 20 Hz B. 50 Hz C. 40 Hz D. 60 Hz
492	The consumption of energy by a 60 W bulb in 2 s is	A. 0.02 J B. 30 J C. 60 J D. 120 J
493	When did an international committee agree on a set of definition of units.	A. 1912 B. 1956 C. 1960 D. 1986
494	Emitter follower amplifier is an example of.	A. Current series feedback B. Voltage series feedback C. Current shunt feed back D. Voltage shunt feedback
495	Which of the following is not an electromagnetic wave.	A. game rays B. Ultraviolet rays C. Ultrasonic waves D. Microwaves
496	The ration Cv/Cp = y for a diatomic gas like air is	A. 1.29 B. 1.30 C. 1.40 D. 1.67
497	Optics is the	A. Scientific study of light and vision B. Scientific study to sound C. Scientific study of time D. Scientific study of fluid
498	The gas temperature is increased from 27 ^{o}C to 127 ^{o}C What is the ratio of mean kinetic energies.	A. 3/4 B. 4/3 C. 9/10 D. 10/9
499	The emission of Beta particle from protonium -218 results in the formation of.	A. Protactinium -231 B. Thorium -232 C. Astatine -218 D. Radon -222
500	The closed end of an organ pipe having longitudinal stationary waves in it behaves as	A. Antinode B. Source of waves C. Node D. Antinode
501	Para magnetism is.	A. A distrotion effect B. An orientation effect C. A skin effect D. A resistance
		A. Transverse wave B. Longitudinal wave

502	A water wave is an example of.	B. Longitudinal wave C. Hair wave D. Shock wave
503	If the roads are not banked	A. A vehicle will turn over B. A vehicle will not travel along with curve C. Tyres and bearing are damaged D. Roads will be spoiled
504	The pascal is not the SI derived unit of.	A. Pressure B. Stress C. work D. Tensile strength
505	Solar cells are thin sand whishes of	A. good conductors B. Bad conductors C. Semi conductor D. Insulators
506	Which of the following is SI base unit for temperature.	A. Celsius B. Kelvin C. Fahrenheit D. Rankine
507	Which of the following physical quantity has different units as compared to others.	A. Weight of a body B. Tension of a string C. Buoyant force D. Electromotive force
508	Which law states that a change in the internal energy of a closed thermodynamic system is equal to the difference between the heat supplied to the system and teh amount of work by the system on the surrounding.	A. Zeroth law of thermodynamics B. First law of thermodynamics C. Second law of thermodynamics D. Third law of thermodynamics
509	The volume of a goas at constant pressure is directly proportional to the temperature as measured on the.	A. Celsius scale B. Kelvin scale C. Fahrenheit scale D. Baume scale
510	When amplitude of a wave becomes double its energy becomes.	A. Xero B. Double C. 4 times D. 6 times
511	In general work done on or by a gas depends on.	A. The initial state only B. The final state only C. The initial and final states D. The initial state the final state and the path
512	The strength of the magnetic field around the current carrying conductor is	A. Smaller near the conductor B. Greater near the conductor C. constant everywhere D. Changing everwhere
513	The efficiency of a diesel engine is about	A. 15% to 35 5 B. 355 to 40% C. 45% to 655 D. 505 to 65 %
514	The moment of inertia of a body comes in action in	A. Circular motion B. Straight line motion C. Curved path D. zig zag motion
515	Which part of a simple D.C. motor reverses the direction of current through the coil every half cycle.	A. the armature B. The commutator C. the brushes D. The slip rings
516	When an unbalanced external force acts on a body for a short interval of time.	A. The body will experience an impulse. B. The momentum of the body increases C. The velocity of the body increase D. The body is not effected
517	The loudness of a sound depends on its	A. Wavelength B. Frequency C. Wave amplitude D. Regularity
518	If the output voltage is not smooth but pulsating then it can be made smooth by using a circuit known as.	A. Filter B. Gate C. shunt D. Fuse
		A. Water freezes B. All substances are solids

519	Absolute zero may be regarded as the temperature of which	B. All substances are solids C. All gases become liquids D. Molecular motioning a gas would ceases
520	The door of an operating refrigerator in a closed room is opened after sometime the temperature of the room will be	A. Lowered B. Raised C. Unaffected D. Become zero
521	The nuclear model of the atom was derived partly from experiments involving the scattering of alpha particles performed by.	A. Chadwick B. Rutherford C. Anderson D. Einstein
522	Which is the branch of medicine that deals with the anatomy physiology and diseases of the eye.	A. Ophthalmology B. Psychology C. Andrology D. Gynecology
523	An electric Heater and a fan are marked 1000 W, 250 V and 100 W , 220 V respectively The resistance of fan is.	A. Equal to that of heater B. Greater than that of heater C. Less than that of heater D. Zero
524	Larger the diameter of the objective of a telescope.	A. Greater is its resolving power B. Lesser is its resolving power C. Lesser is its magnifying power D. greater is its magnifying power
525	At which temperature a ferromagnetic material is converted into a paramagnetic one.	A. curie temperature B. Boyle's temperature C. Natural temperature D. Neutral temperaturre
526	The half life of a radioactive substance depend on.	A. Pressure B. Temperature C. Amount of substance D. No external influences
527	A large ripple tank with a vibrator working at a frequency of 30 Hz produce 25 complete waves in a distance of 50 cm. The velocity of the wave is.	A. 9.53 cm s-1 B. 60 cm s-1 C. 750 cm s-1 D. 1500 cm s-1
528	An example of continuous spectrum is.	A. Black body radiation spectrum B. Molecular spectra C. Atomic spectra D. All of the above
529	A galvanometer can be converted into voltmeter by connecting in series with the galvanometer a	A. Low resistance B. High resistance C. Resistance of intermediate range D. Shunt
530	The path of a projectile is a	A. Straight line B. Circle C. Ellipse D. Parabola
531	Which law states that if two systems are in thermal equilibrium with a third system they are also in the thermal equilibrium with each other.	A. Third law of thermodynamics B. Second law of thermodynamics C. First law of thermodynamics D. Zeroth law of thermodynamics
532	What is measured by the energy dissipated when a source drives a unit charge round a complete circuit.	A. Electromotive force B. Potential difference C. Power D. Resistance
533	When the source and observer are moving away from each other the apparent pitch will	A. Increases B. Decreases C. Be zero D. Be infinite
534	Short sightedness in the eye occurs due to the.	A. Contraction of eyeball B. Increases in focal length of eye lens C. Reduction in focal length of eye lens D. Reduction in distance between retina and eye lens
535	An ideal engine can be 100% efficient only if its exhaust temperatute.	A. Equal to input temperature B. Less than is input temperature C. More than its input temperature D. 0 ^oC
		A. Polarize

536	Monochromatic light passing through a thick prism is.	A. Polarize B. Disperesed C. Diffracted D. Deviated
537	The moment of inertia depends upon	A. Mass of the body and its radius B. Mass of the body and its angular speed C. Mass and angular momentum D. Mass as well as the distribution w.r.t axis of rotation
538	The field inside a hollow spherical conductor is.	A. Constantin zero B. Constant but not necessarily zero C. A function of charge on sphere D. a function of distance from the centre
539	The word fluid means	A. To rise B. To fall C. To flow D. To oppose
540	Which uranium isotope having the atomic weights as given below is easily fissionable.	A. 234 B. 235 C. 236 D. 238
541	One becquerel is equal to	A. Decay of orie radioactive atoms per second B. Decay of 10 radioactive atoms per secnd C. Decay of 100 radioactive atoms per second D. Decay of infinity radioactive atoms per second.
542	With which factor disputative power of a grating increases.	A. Order of spectrum B. Number of lines per centimeter C. Order and number of lines per centimeter D. Shape of the grating
543	The wavelength of Lyman series for hydrogen spectrum lies in the.	A. Visible region B. Ultraviolet region C. Infrared region D. Far infrared region
544	The materials whose resistivity becomes zero below a certain temperature.	A. Semi conductors B. Super conductors C. Insulators D. conductors
545	If the source of emf is traversed from negative to positive terminal the potential charge.	A. Is negative B. Is positive C. Is zero D. Remain the same
546	Light entering glass will not suffer change in	A. Frequency B. wavelength C. Speed D. Direction
547	Which of the following type of force can do no work on the particle on which it operates.	A. Gravitational force B. Frictional force C. Centripetal force D. Elastic force
548	The efficiency of Carnot engine is	A. Less than one B. Zero C. Greeter than one D. Infinite
549	If the cross sectional area of the pipe decreases the speed of the fluid increase according to.	A. Venturi relation B. Bernoulli's equation C. Equation of continuity D. Torriculli's theroem
550	A convention current is the movement of fluid caused by the change in.	A. Pressure B. Temperature C. Densities D. Volume
551	The highest value reached by the voltage or current in one cycle is its.	A. Top value B. Maximum value C. Average value D. Peak value
		A. Increases B. Decreases

552	With increase in temperature the angle of contact of liquid.	C. Becomes zero D. First increase then decreases
553	The cause of production of eddy current is the	A. Current flowing in a conductor B. Current flowing in a insulator C. Motion of a conductor in a varying magnetic field D. Motion of an insulator in a varying magnetic field
554	What type of process is the Carnot's cycle.	A. Reversible B. Irreversible C. Neither reversible nor irreversible D. May be reversible or irreversible
555	at room temperature the p.d. between the two sides of depletion region for silicon is of the order of.	A. 0.3 V B. 0.5 V C. 0.7 V D. 0.9 V
556	if the line of action of force passes through the axis of rotation of origin, then torque is.	A. Maximum B. Negative C. Zero D. 1
557	The rectangular coil in galvanometer is made up of.	A. Bare copper wire B. Insulated aluminum wire C. Enameled copper wire D. Enameled steel wire
558	A bi convex lens of a material of refractive index 1.5 has the radius of curvature of each side equal to 50 cm the power of the lens will be.	A. 0.5 dipotre B. 1.0 dioptre C. 1.5 diopter D. 2.0dioptre
559	The output of a generator which uses a split ring commutator is.	A. sinusoidal A.C. wave B. Pulsating D.C. wave C. Constant D.C Voltage D. Linerly increasing voltage.
560	Huygen's principle is used to explain the	A. Speed of light B. Dispersion of light C. Propagation of light D. Reflection of light
561	Powder clings to the face due to	A. Compression B. Capillary action C. Cohesion D. Adhesion
562	In an oscillating system damping means reduction in	A. Frequency B. Wavelength C. Amplitude D. Period
563	The bunding energy per nucleon for iron is.	A. zero B. Maximum C. Negative D. Minimum
564	Which of the following has maximum specific heat.	A. Glass B. Iron C. Brass D. Lead
565	Who described an ideal heat engine in 1840	A. Boyle B. Saadi Carnot C. Kelvin D. Currie
566	A field in which the work done in moving a body along the closed path is zero.	A. electric field B. electromagnetic field C. Conservative field D. Non conservative field
567	A 100 kg box is pulled 10 m across a frictionless horizontal surface by a 50 N force The change in the P.E. of the box a	A. 0 J B. 2 J C. 20 J D. 50 J
568	Lenses are commonly made of.	A. Glass only B. Plastic only C. Glass and clear plastic D. Aluminium
569	If an athlete uses 50 J of energy to lift a load in 2 s his muscular power is.	A. 125 W B. 250 W C. 500 W

		D. 1,000 W
570	The index of refraction for a substance is	A. Constant B. Constant for a given wavelwngth C. Variable with the speed of light D. Never constant
571	When a charged rod is brought near bits of dry cork dust The dust will.	A. Cling firmly to rod B. Be replied from the rod C. Attract itself to the rod a first and then fly off D. Be repelled at first and then be drawn to the rod
572	The velocity of an object when projected from the earth in order to escape the earth's gravitational field is called the.	A. Terminal velocity B. Average velocity C. Instant aeneous velocity D. Escape velocity
573	In a nuclear reactor chani reaction is controlled by introducing.	A. Iron rods B. Cadmium rods C. Graphite rods D. Platinum rods
574	An alternation produced in shape length or volume when a body is subjected to some external force is.	A. Deformation B. Polymerization C. Crystallization D. Elasticity
575	If volume of the gas doubled without changing its temperature the pressure of the gas is	A. Reduced to half of original value B. Not changed C. Reduced to one fourth of original value D. Doubled
576	Which of the following a natural example of a capactor.	A. Fire B. Snow C. Air D. Lightining
577	Which of the following propagates at the same speed as velocity of light.	A. Heat waves B. Sound waves C. Shock waves D. Beta particles
578	Ionization of a hydrogen atom originally in its ground state takes a minimum out of energy equal to.	A. 2.4 J B. 4.2 J C. 12.3 eV D. 13.6 eV
579	Plane polarized light can be produce dby	A. Simple reflection B. Double refrraction C. Scattering of light D. All of these
580	Which of the following is a clinical thermometer.	A. Gas thermometer B. Mercury thermometer C. Alcohol thermometer D. Radiation thermometer
581	Which magnetic properties is inherent in all materials.	A. Para magnetism B. diamagnetism C. Ferromagnetism D. demagnetism
582	Since a diode permits the flow of current only in one direction so it can be used as.	A. An oscillator B. A rectifier C. A phot deflector D. A transistor
583	The curve between the acceleration and velocity of a body in SHM is a	A. Circle B. Ellipse C. Square D. Parabola
584	Which of the following quantities is discrete according to Bohr's hypothesis.	A. Momentum B. Potential energy C. Angular velocity D. Angular momentum
585	As the mass number varies, which of the quantities does not change w.r.t nucleus.	A. Mass B. Volume C. Binding energy D. Density
586	The SI unit of strain is	A. N m-1 B. N m-2 C. N m D. It has no unit

587	The angle of scattering for which the Compton shift is maximum is.	A. 0^o B. 45 ^o C. 80 o D. 180^o
588	The final image produced by a microscope is.	A. Real and erect B. Virtual and erect C. Real and inverted D. Virtual and inverted
589	Lenses of what diameter are usually not practical.	A. Less than 1 m B. Larger than 1m C. Larger than 5 m D. Larger than 10 m
590	The special theory of relativity was presented by	A. Albert Einstein B. Newton C. Maxwell D. Planck
591	Which of the following can be used to calculate electrical power.	A. Current x resistance B. Potential difference x current C. Potential difference / current D. Potential difference /resistance
592	Magnetic flux with a closed circuit depends	A. Directly on number of turns of the coil B. Inversely on number of turns of the coil C. On geometry of the circuit D. Nature of the charges
593	When objects placed in a room are exposed to X- rays they appear	A. Violet B. Visible C. Red D. Invisible
594	For maximum range angle of projection of the projectile should be	A. 45 ^o B. 90^o C. 120 ^o D. 180 ^o
595	The emf induced by the motion of a conductor across a magnetic field is called.	A. Absolute potential B. Motional emf C. Induced emf D. Terminal potnetial
596	Kinetic and potential energies are	A. Not inter convertible B. Inter convertible C. Two forms of torque D. Not related with each other
597	The centre of gravity of a body is	A. The centre of the body B. The point at the mass of the body acts C. The point at which the whole weight of the body acts D. The point of rotation
598	The pressure of a gas is directly proportions to	A. Mean velocity of the molecules B. Mean square velocity of the molecules C. Root mean square velocity of the molecules D. Instantaneous velocity of the molecules
599	A piece of weighed wood just floats in water when placed in alcohol will	A. Float lower B. Float higher C. Stay as before D. Sink
600	Which Muslim Scientist gave the first clear description and correct analysis of pinhole camera.	A. Nasir al Din Al tusi B. Ibn al Haithem C. Ibn Ishaqal kundi D. al -Khawarizmi
601	Which of the following is dimensionless.	A. Strain B. Stress C. Pressure D. Volume
602	If work must be done by an outside agent attempting tobring two point charges close together.	A. They are of opposite signs B. The field is not conservative C. The work is recoverable when they separate D. The P.E. of the charges is reduced by the amount of the work done

603	The steady current which produces the same heating effect in a resistance in a given time as the alternating current does in the same resistance in the same time is called.	A. Induced current B. Root mean square value of an alternating current C. Mean value of alternating current D. Electromotive force
604	The energy delivered to the tissue per unit mass is called the absorbed dose of.	A. X rays B. gama rays C. Radiation D. energy
605	What is the relativistic version of the Schrodinger equation.	A. Klein Gordon equation B. Laplace equation C. Quadratic equation D. Binomial equation.
606	What is the effect of electric and magnetic fields on X-rays	A. X-rays are deflected B. X-rays are not deflected C. X-rays are sometimes deflected and sometimes not D. Nothing can be said
607	The highest efficiency of a heat engine whose low temperature is 17 oC and the high temperature of 200 oC is.	A. 20% B. 30% C. 35% D. 40%
608	In optics, which subfield studies the measurement of electromagnetic radiation including visible light.	A. Radiometry B. Photometry C. Telemetry D. Chronometry
609	The escape velocity	A. Is independent of mas of the body B. Increases with the increases of mass of the body C. Decreases with the decreases of mass of the body D. Depends upon the type of body used
610	Natural radioactivity was discovered in.	A. 1978 B. 1896 C. 1904 D. 1906
611	Which of the following particles leave no trail in a cloud chamber.	A. Electrons B. Protons C. Alpha particles D. Neutrons
612	Which particle are not emitted by a radioactive substance.	A. Alpha particles B. Beta particles C. Gama particles D. Neutrons
613	Which experiment confirmed the de Broglie hypothesis.	A. Double slit experiment B. Division germier experiment C. Schrodinger's Cat experment D. Bohr's experiment
614	The temperature scale based upon triple point of water was given by	A. Rumford B. Carnot C. Kelvin D. Celsius
615	Newton's rings are formed due to	A. Diffraction of light B. Interference of light C. Polarization of light D. Reflection of light
616	What is a measure of the total energy of a thermodynamics system.	A. Entropy B. Enthalpy C. Randomness D. Chaos theory
617	Which is the heat transfer mode between an object and its environment due to circular fluid motion.	A. Conduction B. Convection C. Radiation D. Mass transfer
618	The cross product of two vectors is magnitude when	A. Vectors are parallel B. Vectors are antiparallel C. Vectors are perpendicular D. They are rotated through 270^o
		A. 0.4 kj

619	What is the heat required in Kilo joules when the temperature of 100 g of copper is raised thgough 20 K/. Specific heat capacity of copper is 0.4 x 10-3 kg -1 k-1	B. 0.8 kj C. 400 kj D. 800 kj
620	The process of converting A.C and D.C. is known as	A. Amplification B. _{Filtration} C. Rectification D. Saturation
621	The process of energy generation in sun and stars is.	A. Fusion of heavy nuclei B. fusion of light nuclei C. Fission of light nuclei D. Solar panels
622	Which of the following is an example of continuous spectra.	A. Black body radiation spectrum B. Molecular spectra C. Atomic spectra D. grating spectrum
623	Lenz's presented his law is	A. 1826 B. 1829 C. 1834 D. 1839
624	In a fission reactor which particle causes a uranium -235 nucleus to split.	A. Alpha particle B. Gama ray C. Neutron D. Proton
625	The blooming of the image due to dispersion in lenses is called.	A. spherical aberration B. Chromatic aberration C. Astigmation D. Curvature of image field
626	If positive terminal of the battery is connected to n-type and negative terminal of the battery is connected to p-type then the diode is.	A. Saturated B. A gate C. Forward biased D. Revere biased
627	The concept of entropy was introduced by	A. Saadi Carnot B. Boyle C. Charles D. Rudolph Celsius
628	Clouds are white because they efficiently scatter sunlight of all	A. Colours B. Wavelengths C. Frequencies D. Phases
629	Lagging of magnetic flux density behind magnetic field is known as.	A. Permeability B. Susceptibility C. Hysteresis D. Uncertainty
630	Mean free path of gas molecules is inversely proportional to its.	A. Volume B. Pressure C. Temperature D. Weight
631	When we decrease the diameter of the objective lens of a telescope the resolution of telescope	A. Increases B. Decreases C. Remain the same D. Depends upon the focal length of the lens
632	The input exultation for a JFET is	A. Current signal B. Voltage signal C. Voltage and current signals D. Neither voltage nor current signal
633	The negative of the potential gradient is	A. Potential energy B. Electrostatic force C. Electric field intensity D. Electromotive force
634	A stone is whirled in a vertical circle at the and of a string when the stone is at the highest position, tension in the string is	A. Maximum B. Zero C. Equal to weight of the stone D. Less than weight of the stone.
635	Which of the following properties of sound is affected by change in air temperature.	A. Amplitude B. Intensity C. Frequency D. Wavelength
636	The pitch of sound depends on its	A. Wavelength B. Frequency C. Wave amplitude

		C. Wave amplitude D. Harmonic content
637	In a charged capacitor the energy resides	A. In the negative plate B. In the positive plate C. In the field between the plates D. Around the edge of the plates
638	What is the necessary condition for Boyle's law to hold good.	A. Isothermal B. Adiabatic C. Isobaric D. Isochoric
639	The resistance of a wire does not depend upon.	A. Area of cross section of the wire B. Length of the wire C. Temperature of the wire D. Current passing though the wire
640	The gravitational potential inside a hollow spherical shell	A. Increases from zero at the centre to the maximum value at the surface B. Is zero throughout the inteior C. Decreases from the centre D. Is uniform throughout the interior
641	An object of placed at the centre of curvature of a concave mirror The image produced by the mirror is located.	A. Out beyond the centre of curvature B. At the centre of curvature C. Between the centre of curvature and the focal point D. At the focal point
642	The condition of complete equilibrium is satisfied if.	A. Vector sum of all the torques is zero B. Vector sum of all the forces is zero C. Vector sum of all the forces and torques is zero D. Angular acceleration is zero
643	A battery drives 50 C of charge round a circuit. The total work done is 750 J What is the electromotive force of the battery.	A. 0.07 V B. 15 V C. 700 V D. 1500 V
644	Light rays after passing through is concave lens.	A. Bend away from principal axis B. Bend towards principal axis C. Remain undeviated D. Travel parallel to the principal axis
645	The dimensional formula for torque is identical to.	A. Kinetic energy B. Pressure energy C. Moment of force D. All of the above
646	Human's eye acts like a	A. LASER B. Mirror C. Lens D. Fibre optics
647	Frequency less than 120 Hz are known as	A. Infrasonic B. Ultra sonics C. Super sonics D. Infrared
648	The chemical behavior of an atom is determined by	A. Mass number B. Number of Isotopes C. Atomic number D. Binding energy
649	The relation between the voltage and current that flows in a resistor is.	A. V = 1/R B. R = vi C. V = I2 R D. I = V /R
650	A car is travelling on a level highway at at speed of 15 m s-1. A braking force of 3,000 N brings the car to stop in 10 s The mass of the car is.	A. 1500 kg B. 2,000 kg C. 2,500 kg D. 3,000 kg
651	The radius of first Bohr's orbit for hydrogen atom is.	A. 0.53 m B. 0.53 nm C. 0.053 nm D. 0.53 mm
652	A stretched wire with clamped ends has a fundamental frequency of 1,000 Hz. What will be the new fundamental frequency if tension in the wire is increased by 2%	A. 980 Hz B. 1,000 Hz C. 1,010 Hz D. 1,020 Hz
		A. All three kinds of rays will be deflected

653	When we pass a radiation from a radioactive material through an electric field.	B. Only the Gama rays are deflected C. The Alpha and Beta particles are deflected D. Only the alpha particles are deflected
654	The heat accepted and rejected by a Carnot engine operating between two heat reservoirs defines.	A. The efficiency of the working substance of the engine B. the ideal gas scale of temperature C. The ratio of the absolute temperature of the reservoirs D. The thermal capacity of the working substance
655	Lissajou's figures are used in a Cathode Ray Oscilloscope while measuring.	A. Time period B. Frequency C. Voltage gain D. phase angle
656	An oscillator is basically an amplifier with loop gain	A. Zero B. Less than unity C. More than unity D. Infinity
657	Select the one that is not a donar	A. P B. AS C. Sb D. In
658	A particle performs SHM of amplitude 0.020 and frequency 2.5 Hz. What is its maximum speed.	A. 0.050 m s-1 B. 0.125 m s-1 C. 0.314 m s-1 D. 0.75 m s-1
659	A metallic rod is continuously heated at its two ends, The heat following through the rod does not depend upon.	A. Mass of the upon B. Area of cross section of the rod C. Temperature gradient between two ends D. Time for which heat flow through the rod
660	When a conductor situated in a dielectric is charted the energy resides.	A. Only on the dielectric B. Only on medium surrounding charge C. On the dielectric and medium both D. Only on the type of the charge
661	LASER beam can be used to generate three dimensional images objects in the process called.	A. Tomography B. Holography C. Autography D. Biography
662	operation of a LASER depends upon	A. Spontaneous emission of radiation B. The existence emission of radiation C. The existence of atoms in normal state D. The existence of atoms in metastable state
663	What units are used to rate electrical fuses.	A. Volts B. Ampere C. Watts D. Hertz
664	A Fly is found to be sitting on a telescope when it is focused towards the moon What effect is expected on the photograph of the moon.	A. Intensity remains unchanged B. No effect C. The complete field of view is blocked D. Coloured image will be seen
665	If a person winds a coil of wire around a steel rod and then passes an electric current through the wire then the	A. Steel rod becomes an electromagnet B. Steel rod becomes hot C. Wire becomes magnetized D. wire becomes demagnetized
666	When net force acting on a system is zero which of the following will be constant.	A. Force B. Linear momentum C. Angular momentum D. Linear impulse
667	Which Isotopes is use din radioactive dating.	A. C¹² B. C¹³ C. C¹⁴ D. C¹⁶
668	The first artificially produced nuclear transmutation was accomplished by.	A. Curie B. Rutherford C. Becquerel

		D. Chadwick
669	Which is defined as the ration of image height of the object height.	A. Linear magnification B. Angular magnification C. Magnifying power D. Resolution
670	In alternating current circuits the quantity which plays the same role as resistance in direct current circuits is called.	A. Reactance B. Admittance C. Conductance D. Impedance
671	The potential difference between two points is equal to the difference of	A. Kinetic energy B. potential energy C. Electric current D. Charge energy
672	The normal Human body temperature in Fahrenheit scale is.	A. 32 ^oF B. 40 ^oF C. 98.4^oF D. 212 ^oF
673	Eye colour is the colour of	A. Iris B. Retina C. Comea D. Pupil
674	The particles equal in mass or greater than protons are called.	A. Mesons B. Bosons C. Baryons D. Nucleons
675	If the rate of change of momentum w.r.t Time is zero then	A. Momentum is a function of time B. Momentums is not conserves C. Momentum is constant D. The impulse is into he same direction as the momentum
676	On the ground the gravitational force on a satellite is W What is the gravitational force on the satellite when at height R/50	A. 0.96 W B. 0.98 W C. 1.04 W D. 1.02 W
677	A breaker is full of water with an ice piece floating The ice place has a lead piece in it When ice cube mells then.	A. Water overflows B. Level falls C. Level remains unchanged D. Density increases
678	Which of the following is a mechanical wave.	A. X rays B. Radio waves C. Sound wave D. Light wave
679	If the transformer turns ratio is 2 and the impedance of primary coil is 250 Ohms then the impedance secondary coil will be.	A. 125 Ohms B. 250 Ohms C. 500 Ohms D. 1000 Ohms
680	An object falls freely under gravity the vertical equilibrium of the body inside is	A. Stable B. Unstable C. Neutral D. Unknown
681	Which one of the following scientists got Noble prize due to his work of combining two basic forces of nature.	A. Dr. Abdul Qadeer khan B. Dr. Abdul Salam C. Dr. Muhammad ishfaq D. Dr. Mubarak mund
682	Who developed the world's first vacuum pump in 1650.	A. Otto vori Guricke B. Lord Kelvin C. Saadi Carnot D. James maxwell
683	In fission reaction, heavy water is used as a	A. Coolant B. Moderator C. Heat exchanger D. Controller of reaction rate
684	Which statement about the image formed by a convex lens is correct.	A. It is always real and eruct B. It is always real and inverted C. It is always virtual and erect D. It may be either virtual or real
685	How are the electrons produced in a cathode ray tube.	A. By applying an electric field to the x plates B. By heating a metal filament C. By ionization of the air D. By radioactive decay

686	When transistor works as an amplifier, its output is.	A. More B. Less C. Zero D. Directly proportional to the input
687	What is the period of geostationary satellite.	A. 6 hours B. 12 hours C. 18 hours D. 24 hours
688	If mass attached to a spring increases then its time period.	A. Increases B. Decreases C. Remains constant D. Decreases slightly
689	We can hear beats when the difference in the frequencies of two sounding bodies is not more than.	A. 2 B. 4 C. 6 D. 10
690	Velocity of sound in air at a given temperature	A. Increases with increase in pressure B. Is independent of the pressure C. Decreases with increases in density D. Increases with increase in density
691	Newton's first law of motion provides the definition of.	A. Distance B. Force C. Vector D. Acceleration
692	From any substance the temperature and pressure at which the material can coexist in all three states in equilibrium is called.	A. Critical point B. Triple point C. Initial point D. Final point
693	A transistor consists of.	A. One p-n junction B. Two p-n junctions C. Three p-n junctions D. Four p-n junction
694	Susceptance of a circuit is the reciprocal of.	A. Admittance B. Resistance C. Reactance D. Impedance
695	The exitance of antiparticle was discovered by	A. Wilson B. Anderson C. Dirac D. Stefen
696	The source of magnetic field are	A. Isolated magnetic poles B. Electric charge distributions C. Current loops D. Solenoids
697	Birds planes and boats are streamlined to reduce	A. Turbulence B. Thrust C. Drag D. Lift
698	Positive electric charge is the type of charge found on a rod which has been rubbed with silk and which is made of.	A. rubber B. Glass C. Steel D. Cork
699	When a beta particle travels though a medium it knocks out electrons from the atoms due to.	A. Gravitational force of attraction B. Electrostatic force of repulsion C. Nuclear force D. Electromagnetic induction
700	At series resonance in L-C-R circuit the impedance is equal to.	A. Ohmic resistance B. Inductive reactance C. Capacitive reactance D. Inductive reactance minus capacitive reactance
701	Surface tension of a liquid may be defined as	A. Heat energy per unit area B. P.E. per unit area C. surface energy per unit area D. K.E. per unit area
702	The separation between the plates of a parallel plate capacitor with original capacitance C is doubled its present capacitance will be.	A. 1/4 C B. 1/2 C C. 2C D. 4 C
		A. Much greater than in air

703	In solid and liquids the variation of the speed of sound with temperature is.	A. Much greater than in air B. Slightly les than in air C. The same as in air D. Smell and usually negligible
704	Laser light is considered to be coherent because it consists of.	A. Many wavelengths B. Uncoordinated wavelengths C. Coordinated waves of exactly the same wavelength D. Divergent beams
705	Which of the following is nearly monochromatic light.	A. Light from fluorescent tube B. Light from neon lamp C. Light from sodium lamp D. Light from simple lamp
706	Which one of the following gases posses maximum oot mean square velocity.	A. Hydrogen B. Oxygen C. Nitrogen D. Carbon dioxide
707	When a charged particle is moved through a magnetic field if suffers is change in its.	A. Charge B. energy C. Mass D. direction of motion
708	The first demonstration of wave nature of light was provided in 1801 by the experiment of	A. HHuygen B. Thomas young C. Fresnel D. Maxwell
709	A 100 Hz A.C. is following in A 7 mH inductance What is its reactane.	A. 0.4 Ohms B. 4.4 Ohms C. 7Ohms D. 44 Ohms
710	Which of the following is not electromagnetic .	A. x-rays B. Gama rays C. Cathood rays D. Infrared rays
711	On which of the following parameters the amount of charge that can be placed on a conductor does not depend on.	A. Its capacitance B. Its size or shape C. its potential D. Dielectric strength of the surrounding medium
712	Which of the following statements concerning G and g is true.	A. g is scalar white g is a vector B. g is inversely proportional to the mass of the planet C. g is independent of the mass of the planet D. both G and g have the same units
713	Absolute P.E. of a body can be calculated	A. At centre of the earth B. Below centre of the earth C. From surface of the earth D. Below surface of the earth
714	Soap cleans the dirty clothes because.	A. Its chemical constituents are changed B. Itr increases the surface tension of its solution with water C. It increases the surface tension of its solution with water D. It is less dense than that of water
715	Which of the following phenomenon is observed in obtaining an X ray photograph of our hand.	A. Photoelectric effect B. Zeeman effect C. Shadow photography D. Ionization
716	An alternating current can be produced by	A. Turbine B. Electric motor C. Generator D. Trnasormer
717	In which of the following the loss of energy is less.	A. Direct current B. Alternating current C. Thermoelectricity D. Photoelectricity
718	What makes the air coming out of a punctured tyre cool.	A. Isothermal expansion B. Adiabatic expension C. Flow at high speed D. Atmospheric pressure
719	The phenomenon of radioactivity is associated with	A. Decay of nucleus B. Decay of atoms

719	The phenomenon of radioactivity is associated with	C. Fusion of nuclei D. Emission of electrons
720	Which form of electromagnetic radiation is used in RADAR.	A. Long wavelength ultraviolet waves B. short wavelength microwaves C. short wavelength infrared wave D. Long wavelength radiowaves
721	The locus of all points in a medium having the same phase of vibration is called.	A. Creast B. trough C. Wavelength D. Wave front
722	The study of atomic structure of crystals by x rays was initiated by.	A. Mosely B. Young C. Huygen D. Bragg
723	The unit of energy are the same as that of	A. Force B. Power C. Work D. Efficiency
724	The value of voltage or current that exists in a circuit at any instant of time measured from some reference point is its.	A. Peak value B. Peak to peak value C. Instantaneous value D. Average value
725	Why does a glass plate inside a colorless liquid become invisible	A. The colours of both are same B. The densities of both are same C. Their refractive indices are same D. Their refractive indices are different
726	When $X_C = X_l$, this condition is called.	A. Equality B. Balanced C. Resonance D. Equlibrium
727	The diver spins faster when moment of inertia becomes	A. Smaller B. Greater C. Double D. zero
728	A substance which has empty conduction band.	A. Insulator B. Conductor C. Semi conductor D. super conductor
729	A sheet of transparent material with many fine equally spaced lines ruled parallel on its surface is called	A. Interferometer B. Grating element C. Ruler D. Patch
730	Light waves can be polarized because they	A. have short wavelength B. Have high frequency C. Can be reflected D. Are transverse
731	Which of the following can be used visualize the third law thermodynamics	A. Light B. Heat C. Water D. All of these
732	Which of the following quantity in analogous to temperature in electricity.	A. Charge B. Resistance C. Inductances D. Potential
733	Power of lens is measured in	A. cm B. Metres C. cm-1 D. Dioptres
734	Which of the following is an electrical insulator that can be polarized by an applied electric field.	A. Conductor B. Condenser C. Di electric D. Capacitor
735	Which of the following phenomenon cannot be understood by quantum theory.	A. Photo electric effect B. Compton effect C. X-Rays production D. Interference
736	A tin film of liquid is enclosed between two glass plates it is difficult to spates the plates on account of.	A. Surface tension B. Atmospheric pressure C. Viscosity D. Friction

737	An electrical source with internal resistance's' is said to operate a lamp of resistance R what fractions of the total power is delivered to the lamp.	A. R+r/R B. R-r/R C. R/R+r D. r/R-r
738	The 'x' in X-rays means	A. Xenon B. Explosion C. x for unknown D. X makes the spot
739	The moment of linear momentum is equal to	A. Implies B. Torque C. Angular momentum D. Couple
740	Which one of the following is not a measure of electric power.	A. Vi B. I2R C. VR2 D. V2/R
741	When the battery is being charged its terminal potential difference than its emf is.	A. Less B. Greater C. Double D. Squared root
742	The refractive index of benzenes is 1.5 What is the critical angle of benzene.	A. 0.667 ^o B. 42 ^o C. 48^o D. 90^o
743	The two elements with same number of electrons but different mass number are called.	A. Isotones B. Isobars C. Isotopes D. Isomers
744	Angular simple harmonic motion is.	A. Periodic rectilinear motion B. Independent of any applied torque C. Periodic rotational motion D. Never defined
745	All the magnetic materials lose their magnetic properties when	A. Dipped in oil B. Dipped in water C. Heated D. Cooled
746	LASER is a device for	A. Producing a beam of white light B. Producing a beam of monochromatic and coherent light C. Producing a beam of high intensity incoherent light. D. Producing highly penetrating's X-rays
747	Binding energy per nucleon is.	A. Greatest for heavy nuclei B. Least for heavy nuclei C. Greatest for light nuclei D. Greatest for medium weight nuclei
748	What does a dynamo generate	A. Electrons B. Emf C. anion D. Cation
749	The ratio of the rms value of the applied voltage to the rms value of resulting A.C. is called.	A. Reluctance B. Impedance C. Reactance D. Resistance
750	The power of a convex lens is 5 D at what distance the object should be placed from the lens so that its real and 2 times larger image is formed.	A. 25 cm B. 30 cm C. 35 cm D. 40 cm
751	A solid state detector is basically	A. A reverse biased p-n junction B. A forward biased p-n junction C. A p-n -p transistor D. A n-p-n transistor
752	Radius of the Bother's orbit is r the radius of second orbit will be.	A. 2 r B. 3 r C. 4 r D. 8 r
753	When damping is small amplitude of vibrational resonance will be	A. small B. Large C. Infinite D. Un changed
		A. Resonance

754	What is term for tendency of a system to oscillate with larger amplitude at some frequencies than at others.	B. Impedance C. Inductance D. Capacitance
755	In any L-C-R circuit	A. Current lags the applied voltage B. Current leads the applied voltage C. Current sometimes leads and sometimes lags the applied voltage D. Current remains in phase with voltage
756	If the K.E. of a body becomes four times of its initial value the new momentum will be.	A. Half B. Same C. Four time D. Double
757	When the number of turns in the solenoid is doubled without any change in teh length of the solenoid its self inductance will be.	A. Halved B. Doubled C. 4 times D. 8 times
758	Which of the following is standard scale of temperature	A. Mercury scale B. Platinum resistance scale C. Gas scale D. Alcohol scale
759	The SI unit of decay constant is.	A. m B. m-1 C. s-1 D. N m-1
760	Who invented commutator.	A. William Sturgeon B. William Smith C. Michael Faraday D. Mosely
761	Michelson's interferometer can be used to measure.	A. Wavelength of light B. Intensity of light C. Amplitude of disturbances D. Frequency of light
762	Which of the following in the best container for gas during adiabatic process.	A. Copper vessel B. Thermos flask C. Glass container D. Wooden container
763	The material of an electromagnet should have high	A. Permeability B. susceptibility C. Retentivity D. Hysteresis loss
764	An object is -14 cm in front of a convex mirror The image 5.8 cm behind the mirror. What is the focal length of the mirror.	A. -4.1 cm B. -8.2 cm C. - 9.9 cm D. -20 cm
765	The energy supplied in charging a capacitor resides after the charging in.	A. The magnetic field B. The electric field C. the battery D. The moving conduction charges
766	The capture of neutron by a proton results in the formation of.	A. Deuteron and gama rays B. Deuteron and alpha particle C. Triton and Beta particles D. Tritron and X rays
767	The electron behave an waves because	A. They can be diffracted by a crystal B. They can produce ions in gases C. They can be deflected by magnetic field D. They can be deflected by electric field
768	Faraday's law was deduced in	A. 1826 B. 1831 C. 1836 D. 1841
769	Which one of the following cannot be polarized.	A. Radiowave B. Ultraviolet rays C. X- rays D. Sound waves
770	Matter waves	A. Are electromagnetic in nature B. Travel with the speed of light C. Can be diffracted D. Are longitudinal waves

771	In the experiment of production od x rays electrons are accelerated towards the anode by	A. Thermionic emission B. Potential difference C. Breaking potential D. Cut of currrent
772	Electric field lines	A. Start from a negative charge and terminal ate on a positive charge B. Never cross each other C. Always cross each other D. Leaving a positive charge are not proportional to the maginitud of charge
773	Entropy of universe is increasing day by da due to.	A. Power generating processes B. Energy used into work C. Depletion of ozone D. All of the above
774	A double convex air bubble in water will behave as.	A. Plane slab B. Concave mirror C. Convex lens D. Concave lens
775	The wave form of SHM is a	A. Sine wave B. Cosine wave C. Square wave D. Electromagnetic wave
776	To reduce spherical aberration in optical instruments which of the following should be used.	A. Plano convex lenses B. Concave lenses C. Spherical mirrors D. Plane mirrors
777	How does viscosity affect relative motion between the liquid layers.	A. Does not affect B. Accelerates C. May accelerate of retard D. Retards
778	The perpendicular distance between the line of action of forces and the axis of rotation	A. Torque B. Moment arm C. Moment of force D. Momentum
779	When a hot liquid is mixed with a cold liquid temperature of the mixture.	A. First decreases and then becomes constant B. First increases and then becomes constant C. Continuously decreaes D. Is undefined for some time and then nearly becomes constant
780	The process of getting energy by direct combusting method from the waste products is commonly known as.	A. Solid waste B. Depletion region C. Green house D. Fregmentation
781	Polarization of light shows that light is.	A. Corpuscular in nature B. Of extremely short waves C. Longitudinal waves D. Transverse waves
782	Which of the following quantities is not changed during refraction of light.	A. Its direction B. Its speed C. Its frequency D. Its wavelength
783	Which particle interact via all fundamental forces.	A. Leptons B. Hadrons C. Muons D. mesons
784	Sound wave in air are	A. Longitudinal waves B. Transvers waves C. Electromagnetic waves D. Matter waves
785	The internal inertia of a thermodynamics system is known as.	A. Enthalpy B. Entropy C. Isotherm D. Adiabatic
786	Intensity of the dark bands in interference pattern becomes zero when two waves.	A. Of light are monochromatic B. Are of the same frequency C. Are of the same amplitude D. Travel in opposite direction
787	Who introduced the concept that an atom posses quantized energy levels.	A. Raman B. Bohr C. Newton

		D. Fermi
788	On which parameter the path difference between two interfering waves depends upon.	A. Amplitude B. Pitch C. Intensity D. Phase angle
789	When a ray of light enters from rarer medium to a denser medium its wavelength.	A. Increases B. Decreases C. Remain constant D. Vanishes
790	The combined resistance of two identical resistors, connected in series is 18 Mega Their combined resistance in a parallel arrangement will be.	A. 2 Mega B. 4 Mega C. 8 Mega D. 12 Mega
791	It is sometimes necessary to protect electrical apparatus from magnetic field This can be done by surrounding the apparatus with a box made from.	A. Aluminum B. Iron C. Steel D. Rubber
792	In n-p-n transistor the current flows in the direction from	A. Emitter to base B. emitter to collector C. Base to emitter D. Base to collector
793	What is the emission of light by a substance that has observed light or others electromagnetic radiations of a difference wavelength.	A. Fluorescence B. Illuminance C. Luminance D. Incandescence
794	When an object moves with a very high speed the length in the direction of motion.	A. Contracts B. Expands C. Remains the same D. Becomes infinity
795	The amplitude of a vibrating body at resonance place in vacuum is.	A. zero B. Maximum C. Minimum D. Infinite
796	The pulsating outflow of blood from the heart by alternate systole and diastole is smoothed out by	A. The blocking action of the heart's valves B. The viscosity of the blood C. The effect of gravity D. the elasticity of the blood vessels
797	A 800 W toaster and a 1.3 kW frying pan are plugged into the same 120 V lines, then	A. Fuse will not blow B. Fuse will blow C. Supply will spark D. Only toaster can work
798	The temperature which is the same in ^{O}C and ^{O}F is.	A. -20 B. -40 C. 20 D. 40
799	What is the magnifying power of a convex lens of focal length 5 cm.	A. 3 B. 5 C. 6 D. 20
800	The possible values of principal quantum number are.	A. only zero B. 0,1,2,.....7 C. 1,2,3.....8 D. 2,3,4,6.....10
801	Which is the correct statement regarding the nature of light.	A. It has wave nature B. It has particle nature C. It has both wave and particle nature at the same time D. It has wave nature sometime and particle nature at some other time.
802	What happen to entropy in an irreversible cycle.	A. No gain in entropy B. No change in entropy C. Loss of entropy D. A net gain of entropy
803	When a balloon sticks to the whiteboard It is an example of.	A. Conoduction B. Induction C. Polarization D. Conservation of charge
804	Charge to mass ration of an electron is determined by using the relation.	A. e/m = B/rv B. e/m = r/vB C. e/m = V/Br D. e/m = v/r

805	In potential for the material of cathode pure metals are rarely used because of their	A. Low reflecting power B. High reflecting power C. Low resolving power D. High resolving power
806	If the pressure of a gas is doubled, then its thermal conductivity will	A. Increases B. Decreases C. Remain constant D. Be zero
807	Waves transfer	A. Frequency B. Velocity C. Energy D. Wavelength
808	Two tuning forks have same natural frequency One of them is now loaded with wax. When both the forks are sounded together the will	A. Produce interference B. Produce vibrations C. Remain in resonance D. Produce beats
809	X-rays spectrum may be	A. Continuous spectrum B. Discontinuous spectrum C. Line spectrum D. Continuous and line spectrum
810	Reversible alternation of the form of dimensions of a solid body under stress and strain is called.	A. elastic limit B. Plastic limit C. elestic deformation D. Plastic deformation
811	Let at constant temperature the pressure of an ideal gas be doubled so that the new volume is.	A. Doubled the original volume B. Same as original volume C. Reduced to half the original volume D. Reduced to two times the original volume
812	The dimensions of torque are.	A. [MLT-2] B. [ML-1T-1] C. [ML2T-2] D. [ML-2]
813	An electrical device is rated at 12 W , 2 A How many 1.5 V batteries are needed in the device.	A. 2 B. 4 C. 6 D. 8
814	The light rays which combine destructively would mean that resultant	A. Intensity increases B. Intensity decreases C. Amplitude increases D. Amplitude decreases
815	What kind of movement is dictated by the laws of thermodynamcis.	A. Energy motion B. Heat work C. Light heat D. Energy light
816	Which term is used for human eye deflect near sightedness.	A. Myopia B. Hypermetropia C. Presbyopia D. Calaract
817	Two lenses of focal length 'f' are combined the resultant focal length is	A. f B. 2f C. f/2 D. zero
818	The term radius of gyration relates to.	A. Moment of force B. Moment of inertia C. Law of gravitation D. simple harmonic motion
819	If two different masses have same momentum then the lighter one has more.	A. K.E. and velocity B. Velocity only C. Both K.E. and P.E. D. Only P.E
820	Beats occurs because of.	A. Reflection B. Refraction C. Interference D. Doppler's effect
821	In a R-L-C series circuit, when the frequency of A.C. source is high the circuit is.	A. R-L Circuit B. R-C circuit C. L-C circuit D. R-L or R-C
		A. Negative of a vector

822	The reverse process of vector addition is called	B. Subtraction of vectors C. Resolution of vectors D. Multiplication of vector
823	A sound wave is an example of	A. Transverse wave B. longitudinal waves C. Hair wave D. Stationary wave
824	Which of the following represents an elastic wave.	A. Light waves B. Radiowaves C. X-rays D. Sound waves
825	House hold circuits are mostly	A. Wired in sires B. Wired in parallel C. Made using wires of gold D. Made using wires of silver
826	When the lift is moving upward with an acceleration then weight of the object will be.	A. w = ma B. w - ma C. w D. 2 w
827	According to Max. Planck, energy is released or absorbed in discrete packets called.	A. quanta B. Meson C. Energy shells D. Position
828	Bohr's atomic model assumes	A. Nucleus is of infinite mass and is at rest B. electron in a quantized orbit will not radiate energy C. Mass of electron remains the same D. All of the above
829	Who wrote books on sound and music.	A. Galileo B. Alkundi C. Alberuni D. Ibn al Haithem
830	The smooth and steady streamline flow is known as	A. Turbulent flow B. Laminar flow C. Regular flow D. Irregular flow
831	The cloud chamber was invented by C.T.R. Wilson in	A. 1905 B. 1907 C. 1909 D. 1911
832	Which effect produce ultrasonic is quartz.	A. Pyroelectric effect B. Piezoelectric effect C. Hall effect D. Magnetostriction effect
833	Which of the following quantities is analogous to mass in electricty.	A. Charge B. Potential C. Capacitance D. Inductance
834	Max. Planck was awarded Nobel prize in.	A. 1916 B. 1918 C. 1921 D. 1923
835	In electromagnetic spectrum X-rays are next to.	A. Water waves B. Radio waves C. ultraviolet waves D. Infrared waves
836	Five joules of work is needed to shift 10 C of charge from one place to another The potential difference between the places is.	A. 0.5 V B. 2 V C. 5 V D. 10 V
837	What is the value of earth's magnetics fields.	A. 5 G B. 50 G C. 100 G D. 500 G
838	What happens to Carnot efficiency if the source temperature increases.	A. Decreases B. Increases C. Remain the same D. Becomes zero
839	A force of 20 N is applied on an elastic spring if the extension produced in the springs to cm,	A. 2 Nm-1 B. 20 N m-1

839	the value of spring constant.	C. 200 N m-1 D. 2,000 N m-1
840	Electromagnetic wave theory was proposed by	A. Maxwell B. Hertz C. Fizeace D. Huygen
841	Coulomb's law for the electrostatic force between two electric charges resembles the	A. Law of conservation of energy B. Law of conservation of mass C. Newton's law of gravitation D. Newton's law of motion
842	Loss of power is optical fibre result into	A. Poor receipt ion of signals B. Delay in time for reception of signals C. accurate information at the receivers D. All of the above
843	A D.C Motor converts	A. Mechanical energy into electrical energy B. Mechanical energy into chemical energy C. Electrical energy into mechanical energy D. Electrical energy into chemical energy
844	Which law states that two given samples of an ideal gas at the same temperature pressure and volume contain the same number of molecules.	A. Charles law B. Avogadro's C. Boyles law D. Boizmann law
845	Isotopes are the atoms of the same elements which contain equal number of.	A. Nucleus B. Neutrons C. Protons D. Electrons
846	Which is the best sound source to produce a pure note.	A. Tuning fork B. Flute C. Drum D. Harmonium
847	One light year is equal to.	A. 9.46 x 10¹⁵ cm B. 9.46 x 10¹⁵ m C. 9.46 x 10¹⁵ km D. 7.88 x 10¹⁴ m
848	The moment of linear momentum is called.	A. Torque B. Couple C. Impulse D. Angular momentum
849	Which of the following can be used as an arrester in a nuclear reactor.	A. Graphite B. heavy water C. Uranium D. Cadmium
850	The phenomenon of Compton's effect process that right has	A. Wave nature B. Particle nature C. Dual nature D. Corpuscular nature
851	When a monochromatic wave enters from one medium into another the property that remains unchanged.	A. Amplitude B. Velocity C. Frequency D. Nature of the wave
852	Huygen's wave theory falls to explain	A. Diffraction B. polarization C. Interference D. Refraction
853	At the temperature of -273 ^{o}C. pressure of a gas at constant volume becomes zero This specific temperature is called.	A. Freezing point B. Critical temperature C. Absolute zero D. Terminal point
854	An object gain excess negative charge after being rubbed against another object which is.	A. Neutral B. Negatively charged C. Positively charged D. either a, b, or c
855	J.R. Rydberg Obtained a formula to describe the wavelength of the hydrogen atom in	A. 1785 B. 1885 C. 1936 D. 1966

856	Identify the irreversible process	A. Explosion of a bomb B. Slow expansion of a gas C. Slow compression of a gas D. Slow compression of an eleastic spring
857	On which parameter internal energy of an ideal gas depends upon.	A. Volume B. Mass C. Pressure D. Temperature
858	Which one of the following represents an ohm.	A. Volt per ampere B. Joule per second C. Watt per ampere D. Joule per coulomb
859	Echoes arise from	A. Reflection B. Refraction C. Diffraction D. Dispersion of sound waves
860	Mean free path in a gas is the	A. Distance travelled by a molecule before hitting a wall B. Average distance travelled by a molecule in one second C. Average distance travelled between molecules between any two successive collisions D. Root mean square velocity
861	The cosine of the phase angle between the current and voltage in an A.C. circuit is called the	A. Lead factor B. Lag factor C. Dissipation factor D. Power factor
862	When a following field is governed by Maxwell's equations.	A. Electrodynamics B. Optics C. electric circuits D. All of these
863	In which temperature range water decreases in volume with increasing temperature.	A. From 0 ^oC to 4 ^oC B. from 0 ^oC to 10 ^oC C. from 50 ^oC to 100 ^oC D. from 75 ^oC to 100 ^oC
864	A well known example of an intrinsic semi conductors is.	A. Germanium B. Phosphorus C. Cobalt D. Aluminium
865	A single silicon photovoltaic cell produces a current of the order of.	A. A few miliamperes B. 10² A C. 10³ A D. 10⁴ A
866	Sounds of frequencies higher than 20,000 Hz are called.	A. Super sonics B. Infrasonic C. Ultrasounds D. Audible sound waves
867	A freshly made sample of radioactive material gives a count rate of 8,000 counts per minute After twenty days it gives a count rate of 500 counts per minute What is the half life of the materials.	A. 5 days B. 10 days C. 40 days D. 20 days
868	Most widely used types of gas LASER are	A. Neon B. Argon ion C. Helium D. All of these
869	The loudness of a sound deepness on its	A. Wavelength B. Frequency C. Wave amplitude D. Regularity
870	Which phenomenon is responsible formation of shadows.	A. Interference of light B. Diffraction of light C. Polarization of light D. Propagation of light
871	If an object moves with velocity of light the apparent length of the object moving the direction of motion becomes.	A. Larger B. Smaller C. Zero D. Infinity

872	The phenomenon of polarization is done by	A. Selective absorption B. Scattering of light C. Refraction of light D. Dispersion of light
873	the depth of a pond is 4 m What is the apparent depth of the pond if the water level is 3.5 m high. The refractive index of water is 1.33	A. 1.9 m B. 2.3 m C. 3.13 m D. 4.5 m
874	A standard fixed point for calibrating a thermometer is.	A. Boiling point of water B. Melting point of ice C. Temperature of steam D. Triple point of water
875	The surface of a liquid is somewhat similar to a stretched membrane because.	A. There is an elastic stress in the surface B. Tension in the surface increases if the area is increased C. The surface has a natural tendency to contract D. Ripples can be produced on the surface
876	An ammeter can be converted into a voltmeter by connecting a	A. Low resistance i series B. High resistance in series C. High resistance in parallel D. Low resistance in parallel
877	Two forces each of 10 N magnitude act on a body It the forces are inclined at 30 ^{o} and 60 ^{o} with x-axis, then the x-component of their resultant is.	A. 10 N B. 1.366 N C. 13.66 N D. 1.35 .6 N
878	The SI unit of current gain is.	A. Ampere B. Ampere metre C. Ampere volt D. It has no unit
879	Blue colour of sky is due to.	A. Diffraction B. Reflection C. Polarization D. Scattering
880	A lens whose thickness is small as compared to focal length is a	A. Concave lens B. Double concave lens C. Convex lens D. Plano concave lens
881	Difference between the molar heat capacity constant pressure and that a constant volume is equal to	A. Root mean square velocity B. Mean free path C. Boltzmann's constant D. Universal gas constant
882	How the fuse wire in electric supply line is connected to protect the electrical appliances.	A. In parallel B. In sereis C. In mixed order D. In vertical position
883	When a transverse wave is reflected on going from a more dense to a less dense medium.	A. There is no phase shift B. There is a 180 ^o phase shift C. There is a phase shift of 360 ^o D. A crest is transformed to a trough
884	When the deforming force applied on a body produces change in shape, thenit is said t be	A. Tensile stress B. Compression stress C. Shear stress D. Shear modulus
885	Which of the following form of electromagnetic energy has the highest frequency.	A. X rays B. Game rays C. Ultraviolet waves D. Infrared waves
886	Image formed by a camera is	A. Real, inverted, and diminished B. Virtual, upright and diminished C. Virtual, upright and magnified D. Real, inverted and magnified
887	The sun appears elliptical before sunset due to	A. Reflection B. Refraction C. Scattering D. Total internal reflection
		A. Shift to infinity B. shift towards the lens by a small

888	Parallel rays of light are focused by a thin convex lens.A thin concave lens of the name focal length is then joinjed to the convex lens The focal point will.	distance C. shift away from he lens by a small distance D. Remain at its original position
889	When ever current is drawn from a cell Its terminal potential difference and emf become	A. Different B. Same C. Zero D. Negative
890	If the pressure in a closed vessel is reduced by drawing some gas the mean free path of the gas molecules.	A. Decreases B. Remains constant C. Increases D. First increases then decreases
891	Which type of solid have definite melting point.	A. Crystalline solids B. Amorphous solids C. Glassy solids D. Polycrystalline solids
892	The product of two non zero numbers is.	A. A vector quantity B. A unit vector C. Always zero D. Never equal to zero
893	Which device converts alternating current to direct current.	A. Motor B. Generator C. Transformer D. Rectifier
894	Angular frequency time period and frequency in SHM do not depend upon.	A. Mass B. Force constant C. Amplitude D. All of these
895	Maximum number of orders available with a grating is.	A. Independent of grating element B. Directly proportional to grating element C. Inversely proportional to grating element D. Directly proportional to wavelength
896	The horizontal range is equal for the angles.	A. 30 ^o and 45 ^o B. 30 ^oand 60 ^o C. 45 ^o and 90 ^o D. 60 ^oand 75 ^o
897	The special theory of relativity was presented in 1905 by	A. Young B. Planck C. Schrodinger D. Einstein
898	The polarization of an electromagnetic wave is determined by	A. The magnetic field B. The electric field C. The electric and magnetic fields D. The field direction of propagation of electromagnetic waves
899	The core of a transfer is made of iron because	A. Iron is a good electric material B. Iron is cheaper than copper C. Iron is easily magnetized and demagnetized D. Iron makes a good permanent magnet
900	A heart coil is out into two equal parts and only one part is now used in the heater The heat generated will be.	A. Halved B. One fourth C. Doubled D. 4 times
901	The value of power factor in an LCR sense circuit at resonance is.	A. Zero B. 0.5 C. unity D. Infinity
902	The process in which a system undergoes a change of state at constant volume.	A. Isobaric process B. Isochoric process C. Isothermal process D. Adiabatic process
903	Which temperature is the absolute measure of temperature.	A. Thermodynamic temperature B. Freezing point C. Boiling point D. Absolute zero

904	Which force pushes up a body in fluid	A. Thrust B. Lift C. buoyant D. Pressure
905	A vacuum diode conducts when plate	A. Is negative w.r.t cathode B. Is positive w.r.t. cathode C. and cathode are at the same potential D. Resistance is less
906	If a car is to gain momentum it must.	A. Lose inertia B. accelerate C. Move rapidly D. Lose weight
907	The source of geothermal energy is	A. The fusion in the sun B. the radioactive decay in the earths interior C. the rotation of earth around the sun D. The rotation of earth around its own axis
908	The rms value of alternating current is always	A. Infinity B. Unity C. Positive D. Negative
909	If emf of the battery in a thermocouple is doubled, what is the rate of heat generation at one function.	A. Remains unchanged B. Becomes half C. Become double D. Becomes 4 times
910	Which term given below refers to the concept moving clocks run slower than clocks at rest w.r.t an observer.	A. Simultaneously B. Mass variation C. time dilation D. Length contraction
911	The air pressure at the bottom of an air foiling motion is	A. Greater than that on the top B. Equal to that on the top C. Grather than that on the top D. Zero
912	The pressure necessary to liquify a gas at the critical temperature is called.	A. Normal pressure B. Atmospheric pressure C. Critical pressure D. Liquid pressure
913	The maximum displacement from the undisturbed position of the medium to the crest top is called.	A. Wavelength B. Amplitude C. Period D. Frequency
914	Time period of a simple pendulum depends upon.	A. Thickness of the thread B. Mass of the pendulum C. Length of the pendulum D. Amplitude of vibration
915	The force exerted by two charged bodies on another obeys Coulomb's law provided that	A. Both bodies are in the same medium B. the charges are not too great C. On body does not lie inside the other D. The linear dimensions of the body are very much less than the distance between the bodies.
916	The part of theory of relativity which deals with accelerated bodies is called.	A. special theory of relativity B. General theory of relativity C. Lorentz's theory of relativity D. Galilean theory of relativity
917	For the normal operation of transistor the emitter base junction is always.	A. Zero biased B. Reverse biased C. Forward bised D. Both a and b
918	A straight wire carrying current will experience a force when place in uniform magnetic field if	A. The current and field are parallel B. The current and field are at an angle C. the current and field are parallel in opposite directions D. All of the above
919	Mosley's law establishes the x rays fluorescence's of target element with its.	A. Atomic weight B. Atomic number C. Density D. Lattice constant

		D. Lattice constant
920	The total energy of body executing SHM is directly proportional to.	A. Amplitude B. Square of amplitude C. Square root of amplitude D. Reciprocal of amplitude
921	A physical quantity which produces rotation in a body is called.	A. Force B. Torque C. Momentum D. accelerate
922	In which form energy is stored in acondenser.	A. Electric energy B. Potential energy C. Kinetic energy D. Magnetic energy
923	The apaceing between fringes is a Young's double slit pattern will be increased, if we decrease the	A. Wavelength of the souce light B. Distance from slite to screen C. Width of the slits D. Separation of the slits
924	The critical angle will be maximum when light travels from	A. Glass of air B. Water to air C. Water to glass D. Glass to water
925	The gravitational strength on the surface of moon is 1.6 N kg-1 What will be the mass and weight of an object respectively on the surface of the moon.	A. 10 kg , 1.6 N B. 10 Kg , 16 N C. 16 Kg, 10 N D. 16 kg, 160 N
926	Molecules of a liquid	A. Do not vibrate about their mean position B. Are rigidly held with each other C. Have weak attractive forces D. Have strong attractive forces
927	The presence of a magnetic field can be detected by a	A. Small mass B. Stationary positive charge C. Stationary negative charge D. Magnetic compass
928	To final image produced by a compound microscope is.	A. Real and inverted B. Real and erect C. Virtual and erect D. Virtual and inverted
929	In the experiment of photo electric effect the minimum frequency of photons at which electrons are emitted from a metal surface is called.	A. Critical frequency B. Typical frequency C. Threshold frequency D. Surface frequency
930	A pair of point charges with equal magnitude and opposite sign separated by a distance 'r' produce.	A. Electric dipole B. Electric charge C. Electric field D. electric arc
931	The cathode ray oscilloscope is used for	A. Displaying the waveform of given voltage B. Displaying the wave form of given vibrations C. Rectifying a.c to d.c. D. Rectifying D.C. to A.C.
932	Magnetic lines of force due to earth's horizontal magnetic field are.	A. Curved lines B. Elliptical C. concentric circles D. Parallel and straight
933	A ball is thrown straight up What is its acceleration just before it reaches the highest point.	A. Zero B. slightly less than g C. Exactly g D. Slightly greater than g
934	In heavy atims the electrons are assumed to be arranged in.	A. Elliptical shells B. Inner shells C. Concentric shells D. Outer shells
935	An electric motor could be used as a	A. Battery B. Capacitor C. Dynamic D. Transofrmer
936	Diffusion of gases occurs because the molecules of the	A. Gas present in a higher concentration exerts a high pressure B. Gases are different C. Gasses attract each other

		D. Gasses over about randomly
937	Such an inductor coil which does not consume energy and is often employed for controlling A.C. without consumption of energy is called.	A. Reactance B. Choke C. Impendence D. Diode
938	Who first studied the visible region of hydrogen spectrum.	A. Lyman B. Pfund C. Balmer D. Brackett
939	Which of the following pair is correct.	A. Rutherford - x-rays B. Roentgen - Electron C. Chadwick - Neutron D. J.J. Thomson -Photon
940	How positives feedback will effect an amplifier.	A. Increases the voltage gain B. Decreases the voltage gain C. Imitates oscillation to occur D. Damaged it
941	The phenomenon of interference occurs because waves obey	A. Laws of reflection B. Principle of super position C. Laws of motion D. Inverse square law of intensities
942	Which of the following quantity is zero about the centre of mass of baody.	A. Mass B. Acceleration C. Moment D. Angular momentum
943	The temperature of 1 kg of hydrogen gas is the same as that of 1 kg of helium gas if.	A. The gases have the same internal energy B. The gas molecules occupy equal volumes C. The gas molecules have the same root mean square speed D. The gas molecules have same mean translational K.E.
944	Crystalline solids are of.	A. Short range order B. Long range order C. Intermediate range D. Plastics
945	The phase different between the particles vibrating's between two consecutive nodes is.	A. 0 B. Lamda /2 C. 2 D. 2 lamda
946	if temperature eon Celsius scale is 50 oC the temperature on Fahrenheit scale will be.	A. 102 ^oF B. 108 ^oF C. 112 ^oF D. 122 ^oF
947	The dimensions of force are.	A. [MLT-2] B. [MLT-1] C. [M,-1T-2] D. [M-2T-2]
948	x-rays can cause fluorescence in materials such as	A. Cadmium B. Zinc sulphide C. Palatinocyanide D. All of these
949	The equal and opposite forces acting on a body form	A. Angular momentum B. Linear momentum C. Torque D. Couple
950	Which one is the primary standard for temperature measurement.	A. Resistance thermometer B. Mercury in glass thermometer C. Constant volume gas thermometer D. Pyrometer
951	The expression PV/KT represents.	A. Number of moles of the gas B. Number of molecules in the gas C. Total mass of the gas D. Density of the gas
952	Which of the following pair does not have identical dimensions.	A. Energy and torque B. Momentum and impulse C. Mass and moment of inertia D. Energy and work
953	Who proposed the temperature equalization mechanism of a body by thermal radiations with	A. Pierre Provost B. Robert Brown

	that of its surroundings.	C. Albert Einstein D. Issac Newton
954	If 'p' is the momentum of an object of mass 'm' the expression p2/m has base units identical to.	A. Power B. Force C. Velocity D. Energy
955	Permanent change in shape or size of a solid body without fracture resulting from the application of strained stress beyond the elastic limit is called.	A. Elastic limit B. Plastic limit C. elastic deformation D. Plastic deformation
956	If the average velocity of an object is zero in some time internal the displacement of the object for that intercanal will be.	A. Infinite B. zero C. Increase D. Decreasing
957	The critical angle for a beam of light passing from water into air is 48.8 o This mean that all light rays with an angle of incidence greater than this angle will be.	A. Absorbed B. Totally reflected C. Partially reflected and partially transmitted D. Totally transmitted
958	The neutral atoms of all isotopes of the same element contain the same numbers of.	A. Electrons and protons B. Electrons and neutrons C. Neutrons D. Neutrons and protons
959	The circumference of earth was measured by	A. Alberuni B. Alkundi C. Ibn al haithem D. Issac Newton
960	Ohm's law is applicable to	A. Ohmic and non ohmic devices only B. Semiconductors only C. Metals only D. Insulators only
961	If two gases have same reduced pressure volume and temperature it is according to	A. Boyle's law B. Charles law C. Law of corresponding state D. Zeroth law
962	An ideal voltage source has zero.	A. Current B. Electromotive force C. Voltage D. Internal resistance
963	During solid ficain the temperature.	A. Remains constant at the freezing point B. Increases at the freezing point C. Decreases at the freezing point D. Decreases at the melting point
964	Which is the famous standard model of the universe.	A. the big bang B. Casmos C. Astronaut D. The small stap
965	The kinetic molecular model of matter describe matter an being made up of molecules in continuous.	A. Vibratory motion B. Random motion C. rotatory motion D. Linear motion
966	At high temperature a body generally emits redactions of.	A. Small wavelengths B. Long wavelengths C. Moderates wavelengths D. Zero wavelengths
967	If the dot product of two non zero vectors vanishes the vectors will be.	A. any scalar quantity B. Any negative number C. Its magnitude but not direction D. Its magnitude and direction
968	X-rays are good for imagining	A. Tendons B. Brain C. Bones D. Heart
969	Drag force between two layers under consideration depends on	A. Distance between the layers B. Surface area of layers C. Relevant velocity between them D. All of the above
970	Which type of microscope was the first to be developed.	A. Optical microscope B. Digital microscope C. Electron microscope D. All were developed at the same

		time
971	A wave that consists of oscillations occurring perpendicular to the direction of energy transfer is called.	A. Transvers wave B. Longitudinal wave C. Stationary wave D. Shock wave
972	Radio carbon in the atmosphere is produced by the bombardment of.	A. Oxygen by high energy neutrons B. Oxygen by high energy protons C. Nitrogen by high energy protons D. Nitrogen by high energy neutrons
973	The ideal thermal efficiency of a cyclic heat engine is limited by	A. Friction in the engine B. Amount of heat in the engine C. Difference between input temperature and output temperature. D. Amount of work
974	If the wavelength of a wave is 1 cm and its period is 0.02 s , velocity of the wave will be	A. 20 cm s-1 B. 50 m s-1 C. 60 cm s-1 D. 100 cm s-1
975	The rest mass of a particle is independent of the	A. Wavelength of the particle B. Mass of the particle C. Speed of the particle D. Energy of the particle
976	In CC configuration voltage gain is.	A. Less than one B. More than one C. One D. Zero
977	An instrument used to find the direction of the earths magnetic field is known as.	A. Magnetometer B. Electroscope C. Cyclotron D. Particle accelerator
978	A germanium atom is	A. Monovalent B. Diavalent C. Travalent D. Tetravalent
979	Which of the following is the science of measuring the heat of chemical reactions or physical changes.	A. Thermometry B. Calorimetry C. Telemetry D. Photometry
980	Difference in the density of two medium when waves are passing from one into another medium always results in the change in.	A. Wave speed B. Wave direction C. Both speed and direction D. Wave frquency
981	What is the human body temperature in Celsius scale.	A. 30 oc B. 36. 9 oC C. 98. 4 oC D. 100 oC
982	What is generated when air moves an air foil.	A. Thrust B. Lift C. Drag D. Turbulence
983	The velocity of light was determined accurately by	A. Newton B. Huygen C. Michelson D. Young
984	Sub atomic paticles whihc does not experience strong nuclear force are.	A. hadrons B. Photons C. Leptons D. Nucleons
985	When Photon incident on a metal produce the emission of electrons the process is called.	A. Photo electric effect B. Pair production C. x-rays production D. Gama ray production
986	In the magnetic circuit concept the quantity analogous to electric current in electric circuit analysis is.	A. Magnetic flux density B. Permeability C. Magnetic field intensity D. Magnetic flux
987	Why an ammeter is always connected in series in a circuit.	A. Its resistance is very high B. Its resistance is very low C. its resistance is infinity D. It does not draw current from the circuit

988	If a charged body is moved against the electric field it will gain.	A. P.E B. K.E. C. Electrical P.E. D. Gravitational energy
989	Which of the following factor will not affect the speed of sound i a medium.	A. Temperature B. Pressure C. Humidity D. Mass
990	Which incapability of the materials is represented by the phenomenon of hysteresis.	A. Magnetic saturation B. Low susceptibility C. Retrace the path D. Orientation
991	The value of electric field intensity is.	A. Volt B. Coulomb C. Newton D. Newton coulomb
992	The word amorphous means	A. With regular structure B. Without structure C. May have regular structure D. Thermoplastics
993	The mechanical equivalent of heat	A. Has the same dimension as heat B. Has the same dimension as work C. Has the same dimensions as energy D. Is dimensionless
994	What for is a modulator circuit used.	A. To eliminate carrier waves B. To superpose the radio frequency signal on the carrier waves C. To transmit the signal D. To create sound waves
995	The amount of heat developed in a resistor is directly proportional to.	A. The square of the current only B. The resistance of the conductor only C. The time of current passing only D. The square of current resistance and teh time of current flow
996	The aberration in the image formed by a lens due to different wavelengths present in a source is called.	A. Spherical aberration B. Chromatic aberration C. Astigmation D. Achromatic aberration
997	We get light inside a room in a day time due to	A. Interferences B. Polarization C. Diffraction D. Refraction
998	Radioactive decay series can be represents on	A. Smith chart B. Segre chart C. Logarithmic chart D. Carbon paper
999	If we double both the current and the voltage in circuit while keeping its resistance constant the power.	A. Remains unchanged B. Halves C. Doubles D. quadruples
1000	Which of the following quantity has a unit that can be expressed in terms of just two different SI base units.	A. Area B. Change C. Electric current D. Length
1001	Dispersive power of a prism depends upon the wavelength of the light used and is	A. More for large wavelengths B. Less for large wavelengths C. More for small wavelengths D. Less for small wavelengths
1002	What is the basic advantage of class A operation of an amplifier.	A. It has high efficiency B. It has high gain C. It has low distortion D. It has high distortion
1003	A device consisting two different conductors that produce a voltage proportional to the temperature difference between either end of the pair of conductors is a.	A. Thermistor B. Thermocouple C. Strain gauge D. Potentiometer
1004	The phenomenon of natural radioactivity was discovered by	A. Lord Rutherford B. James Chadwick C. Herie Becquerel D. Maria curie

1005	Which principle is in effect when a ship displaces ocean water.	A. Bernouli's B. Pascal's C. Hook's D. Archimedes
1006	In rectifiers silicon junction diodes are preferred to germanium type because.	A. They are cheaper B. They are durable C. Their much lower reverse current makes them more efficient D. Of their geometry
1007	Since selenium becomes conductor in light so it is.	A. Photoconductor B. Photocell C. Thermistor D. Photodiode
1008	Alpha particles are used for the treatment of skin of a patient due to.	A. Highly ionizing power B. Low penetration power C. Positively charged particles D. Helium nucler
1009	Which pair of the following forces has a resultant force of 2 N.	A. 1 N and 1 N B. 1 N and 3 N C. 1 N and 2 N D. 2 N and 2 N
1010	Candela is the SI base unit of.	A. illuminance B. Luminous flux C. Luminous intensity D. Radiant energy
1011	According to kinetic theory of gases one assumes that the collisions between molecules are.	A. Perfectly elastic B. Perfectly inelastic C. Partly elastic D. Partly inelastic
1012	The building up of electric charge on the surface of objects is termed as.	A. Static electricity B. Electric charge C. Electric current D. Electrostatic induction
1013	Object may acquire an excess or deficiency of charge by	A. Rubbing them together B. Grounding them C. Applying coulomb's principle D. Shielding them
1014	In the experiment of production of X rays electrons are accelerated towards the anode by	A. Thermionic emission B. Potential difference C. Breaking potential D. Cut of current
1015	Ethanol is a replacement of	A. Gasoline oil B. Kerosene oil C. Refinery oil D. vegetable oil
1016	Which vector gives the displacement from one point to another in space.	A. Position vector B. Unit vector C. Null vector D. Distance vector
1017	Base current of a transistor is 1 mA and collector current is 99 mA What is emitter current.	A. 1 mA B. 100 mA C. 98 mA D. 110 mA
1018	Which electrical quantity has the same units as electromotive force.	A. Charge B. Current C. Potential difference D. Power
1019	When two point charges of equal magnitude and opposite sign exist very close to one another the arrangement is called.	A. An electric dipole B. An amperian current C. A null charge D. A neutral source
1020	What happens to internal energy of a piece of lead when hammered.	A. Increases B. Decreases C. Remains unchanged D. Becomes zero
1021	Periodic motion is a motion.	A. Under the influence of an elastic restoring force B. That repeats it self in equal intervals of time C. Back and forth over the same path D. With constant acceleration
		A. [MLT-2]

1022	The dimensions of strain are.	A. [ML-2] B. [ML-1T-2] C. [ML-2T-3] D. It is a dimensionless quantity
1023	What is true is real images formed by a converging lens.	A. they are inverted B. They are on the same side of the lens as the object C. They can never be shown on a screen D. They cannot be seen
1024	If gravitational field is not uniform over the extended object or system of point masses the centre of mass and centreof gravity will	A. Be antiparallel B. Not coincide C. Coincide D. Be perpendicular
1025	According to kinetic energy of gases one assumes that the collisions between the molecules are.	A. Perfectly elastic B. Perfectly inelastic C. Partly elastic D. Partly inelastic
1026	Persistence of vision is the phenomenon of the eye by which an afterimage is thought to persist for approximately one twenty faith of a second on the.	A. Retina B. Heart C. Mind D. Liver
1027	Power of the lens is one dioptre, if its focal length is.	A. 1/6 metre B. 1/2 metre C. 1 metre D. 8 metre
1028	A fringe is a path of.	A. Constant amplitude B. Constant phase C. Same wavelength D. Constant frequency
1029	The value of critical angle of glass is	A. 45^o B. 42^o C. 48^o D. 52^o
1030	A convex mirror is used to reflect light from an object placed 66 cm in front of the mirror. The focal length of the mirror is 46 cm Find the location of the image.	A. 23 cm B. -23 cm C. -27 cm D. 27 cm
1031	The specific heat of a substance is a function of its	A. mass B. Weight C. Volume D. Molecular structure
1032	A generator produces 100 kW of power of a potential difference of 10 kV the power is transmitted through cables of total resistance 5 Homs How much power is dissipated in the cables.	A. 50 W B. 250 W C. 500 W D. 5,000 W
1033	The penetrating power of X rays is least with materials of.	A. High mass density B. High volume density C. High electron density D. High weight
1034	The Fahrenheit and Kelvin scales intersect at	A. 40 B. -40 C. 140 D. -140
1035	The dimensions of moment of inertia are	A. [ML2] B. [MLT-1] C. [ML2T-1] D. [ML-1T-2]
1036	The maximum field that a dielectric material can with stand whiteout breaking down is called its.	A. Di electric strength B. Magnetic strength C. Capacity D. Resistance
1037	Which of the following are electromagnetic waves.	A. Alpha particles B. Beta particles C. Gama rays D. Water waves
1038	Which example best illustrates the conservation of electrical energy to chemical energy.	A. Starting a car B. Generating hydroelectric power C. Changing an accumulator D. Melting a fuse
1039	The shape of wave front depends on	A. Density of medium B. Shape of medium C. Viscosity of medium

		C. Viscosity of medium D. Length of medium
1040	Heat Carnot be transferred from a colder to a hotter region unless work is done This is the statement of.	A. Firs law of thermodynamics B. Second law of thermodynamics C. Third law of thermodynamics D. Zeroth law of thermodynamcis
1041	The magnus effect is equivalent to	A. Bernouli's theorem B. Archimedes principle C. Pascal's law D. Blood pressure
1042	The pitch of sound a determined by its	A. Speed B. Frequency C. Direction D. Number of beats
1043	The term used for heat capacity per unit mass is.	A. Latent heat B. Specific heat C. Energy density D. Specific energy
1044	A part of electromagnetic spectrum that can be detected by the human aye	A. Angle of incidence B. Angle of refraction C. Light D. Angle of reflection
1045	Which instrument measures the magnification of a telescope.	A. lactometer B. dynamometer C. Wattmeter D. Ammeter
1046	The device in the circuit that consume electrical energy are known as.	A. Resistors B. Capacitors C. Fuses D. Load
1047	The direction of force on a moving negative charge will be.	A. Opposite to that of positive charge B. Similar to that of positive charge C. At right angel to the positive charge D. Parallel to the positive charge
1048	What are isotopes.	A. Atoms of the same element with different numbers of neutrons. B. Atoms of the same element with different numbers of protons. C. Atoms which are radioactive D. Atoms which have gained or lost an electron
1049	Which italian inventor is credited with describing and sketching the first ideas for contact lens in 1508	A. Galileo B. Leonardo da vinci C. roger Bacon D. Hans Lipperahey
1050	When the velocity of body is doubled which one is doubled too.	A. K.E. B. P.E C. Momentum D. Acceleration
1051	Cosmic rays mostly comprise of	A. Neutral particles B. Negative charged particles C. Positively charged particles D. Ions
1052	A structure that is intermediate between order and disorder is.	A. glassy solids B. Polymeric solids C. Amorphous solids D. Crystalline solids
1053	It the force acting on a body is doubled its acceleration becomes.	A. Half B. Constant C. Double D. One fourth
1054	Though the wavelength of X-rays is smaller than that of visible light yet the speed of X-rays in vacuum is.	A. longer that that of visible light B. Smaller than that of visible light C. Same as that of visible light D. Unpredictable
1055	Particle which can be added to the nucleus of an atom with changing its chemical properties are called.	A. Electrons B. Protons C. Neutrons D. Alpha particles
1056	In case of a convex lens when object is placed at 2F image is formed.	A. At B. 2F C. away from 2F

		D. Between F at and 2 F
1057	The point of which the whole weight of the body acts	A. zero point B. Centre of mass C. Centre of gravity D. Equilibrium
1058	Conservation of energy means that	A. Energy can be destroyed but not created B. Energy can be created but not destroyed C. energy cannot be created and destroyed D. Energy can neither be created nor destroyed
1059	Usually in an operational amplifier the inputs used are of	A. Equal voltage and same polarity B. Equal voltage and opposite polarity C. Different voltage and same polarity D. Different voltage and opposite polarity
1060	Michelson's interferometer was devised in.	A. 1801 B. 1825 C. 1867 D. 1881
1061	In which device is a permanent magnet used	A. An electric bell B. An electromagnet C. A plotting compass D. A relay
1062	Prof. Abdul Salam was awarded Novel prize in	A. 1970 B. 1972 C. 1979 D. 1983
1063	Electromotive force is closely related to.	A. Inductance B. Magnetic flux density C. Potential difference D. Electric field intensity
1064	Gas law PV = constant is for	A. Adiabatic change B. Isothermal changes C. Isobaric changes D. Isochoric changes
1065	In water drops rainbows are formed by	A. Reflection B. Refraction C. Dispersion D. All of these
1066	Young's double slit experiment was performed in	A. 1801 B. 1916 C. 1901 D. 1934
1067	The diameter of a lens is called.	A. Focal length B. Principal axis C. Optical centre D. Aperture
1068	Which particles have spin quantum number 1/2	A. Mesons B. Laptons C. Hadrons D. Muons
1069	When a direct current is passed though a junction formed of two dissimilar metals the junction becomes warmer or cooler depending on the.	A. Current direction B. Thermocouple used C. Temperature gradient D. Amount of current
1070	Which of the following are sources of direct current.	A. Batteries B. Solare cells C. Thermocouples D. All of these
1071	In a half wave rectifier the rms value of the A.C. component of the wave is.	A. Less than D.C. value B. Great her than D.C. value C. Equal to D.C. value D. Zero
1072	Reverberation is the	A. Presence of large number of overtones B. presence of harsh and discordant notes C. Presence of ultrasonic vibrations D. Persistence of audible sound after

		the source has stopped
1073	Which statement about convection is correct.	A. Brownian motion is a form of convection B. Convection occurs only in gas C. Convection results from a density change D. Evaporation is a form of convection
1074	An A.C. dynamo operates on the principle of	A. Mutual induction B. Self induction C. Electromagnetic induction D. Mechanical induction
1075	The sensitivity of the galvanometer can be increased by increasing the	A. Number of turns of the coil B. Area of the coil C. Strength of the magnetic field D. All of the above
1076	The maximum energy of emitted photoelectron is measured by	A. the largest potential difference they can traverse B. The current they produce C. The potential difference they produce D. The speed with they emerge
1077	To measure the accurate value of potential difference across two points, the voltmeter should have.	A. Zero resistance B. small resistance C. Large resistance D. Infinite resitance
1078	Viscosity will be maximum when	A. Water is at 20 ^oC B. Honey is at 20 ^oC C. Water is at 100 ^oC D. Milk is at 100 ^oC
1079	The input resistance of a JFET is of the order of.	A. 1 M Mega B. 10 M Mega C. 100 M Mega D. 1,000 M Mega
1080	The current passing through the coil of a galvanometer is directly proportional to	A. Resistance B. voltage C. Angle of deflection D. conductance
1081	Which of the following quantities is zero about the centre of mass of body.	A. Mass B. acceleration C. Moment D. Angular acceleration
1082	The base unit of temperature in SI is	A. Fahrenheit B. Celsius C. Kelvin D. Rnakine
1083	In a cloud chamber the Alpha particles leave	A. Dense, straight and continuous tracks B. Only straight and continuous tracks C. Thin and discontinuous tracks D. Irregular tracks
1084	High frequency radio wave is called	A. Fluctuate wave B. Carrier wave C. Matre wave D. Energetic wave
1085	Marie Curie and Pierre Curie discovered two new radioactive elements which are.	A. Uranium and radkum B. Platinum and radium C. Polonium and radium D. Crypton and radon
1086	A wave that remains in a constant position is called.	A. Standing wave B. Transvers wave C. Shock wave D. Longitudinal wave
1087	If a single convex lens is placed closed to the eye then it can be used as	A. Telescope B. Simple microscope C. Compound microscope D. Opera glass
1088	The critical mass of fissionable uranium -235 can be reduced by	A. Adding impurities to it B. Heating the material C. surrounding it by neutron reflecting material D. Surrounding it by neutron absorbing material

1089	Which of the following is an example of diamagnetic substances.	A. Nickel B. Chromium C. Antimony D. Cobalt
1090	Which is the health care profession concerned with eyes as well as vision visual system and vision information processing in humans.	A. Optometry B. Ophthalmology C. Telemetry D. Psychology
1091	In an isobaric process there is no.	A. Pressure change B. Internal energy change C. Heat exchanged D. volume change or work done
1092	In an accelerated or non - inertial frame of reference the weight of the body depends upon.	A. Acceleration of the frame of reference B. Velocity of the body C. Momentum of the body D. Velocity of the frame of reference
1093	If a body retains completely its altered shape and size, it is said to be	A. Perfecto elasticity B. Perfect plasticity C. Elasticity D. elastic limit
1094	Which of the following is an example of induced magnetism.	A. A compass needle pointing north B. A north pole attracting iron filings C. A northpole repelling a north pole D. The coil of a motor turning in a magnetic field.
1095	Which parameter is an indication of colour of a star.	A. Weight B. Distance C. Sixe D. Temperature
1096	Which animal did Erwin Schrodinger contemplate using in his famous thought experiment.	A. mouse B. Cat C. Dog D. Rabbit
1097	Why hydrogen atom does not emit x-rays.	A. its size is very small B. It contains only single electron C. In it energy levels are for apart D. In it energy levels are close to each other
1098	A double convex lens acts as diverging lens when the object is.	A. Inside the focus B. At the focus C. Between F and 4 F D. a 4F
1099	Which liquid can flow easily.	A. Traacle B. Pitch C. Ether D. All flow with same rate
1100	When a charged particle moves through a magnetic field it suffers a change in its	A. Charge B. Mass C. Energy D. Direction of motion
1101	One particle having zero mass and zero charge is.	A. Positron B. Electron C. Neutrino D. Neutron
1102	A logic circuit whose output signal is '1' when inputs are different is.	A. NAND gate B. NOR gate C. Exclusive OR gate D. Exclusive NOR gate
1103	Because of second law of thermodynamics about the direction of energy flow what is possible.	A. Heat B. Light C. Energy D. life
1104	The unit of intensity level is.	A. Watt B. Joule C. Bel D. Sabin
1105	Simple harmonic motion is a type of	A. rectilinear motion B. Circular motion C. Rotational motion D. Zig Zag motion
		A. Diffraction

1106	When the angel of incidence becomes larger than the critical angle no refraction occurs This is known is.	A. Diffraction B. Refraction C. Total internal reflection D. Diffuse reflection
1107	The average energy released per fission of U is about	A. 200 eV B. 2 keV C. 2 MeV D. 200 MeV
1108	In a stationary wave the particle velocity at the node is	A. Zero B. Constant C. Minimum D. Maximum
1109	Alpha particles emitted from a radioactive material are.	A. He nucliei B. H -nucliei C. Li nucliei D. B nucliei
1110	The phase velocity is the velocity of a point that moves with a wave at constant phase it is also called.	A. Phase speed B. Wave speed C. Wave velocity D. All of these
1111	Inertial mass and gravitational mass are	A. Opposite B. Proportional C. Weights D. Inversely proportional
1112	Simple harmonic motion may be assumed as a projection of uniform circular motion along a	A. Diagonal B. Hypotenuse C. Radius D. Diameter
1113	What happens when a 250 V, 2500 W water heater is connected to main supply using a plug fitted with a 5 A fuse.	A. The fuse in the plug melts B. The heartier burns out C. The hearter runs at half power D. The hearter works normally
1114	The SI unit of stress is	A. kg m s-2 B. kg m-1 s-2 C. N m-2 D. N m-1
1115	The advantage of LEDs over filament lamp is their	A. Small size B. Reliability C. High operating speed D. All of the above
1116	The resolving power of an instrument increases as the wavelength of light used decreases, the magnifying power will	A. Remain the same B. Increases C. Decreases D. Have no relation between the two
1117	How eddy current losses are reduced in A F and R F transformers.	A. By using air cores B. By using shell cores C. By using laminated cores D. By using ferrite cores
1118	A Spectrum of radiation in which the quantity being studied, such as frequency or energy takes on discrete values is called.	A. Continuous spectra B. Band spectra C. Discrete spectra D. Normal spectrum
1119	Newton proposed his corpuscular theory on the basis on	A. Newton's rings B. Polarization C. Dispersion of white light D. Rectilinear property of light
1120	The advantage of electron tube over a transistor is.	A. Its high efficiency B. Its high gain C. Low consumption of power D. Low input impedance
1121	In modulation, low frequency signal is called	A. Fluctuated signal B. Loaded signal C. Modulated signal D. Harmonic signal
1122	Which Muslim Scientist is regarded as father of optics.	A. Ibn al Haithem B. Al khawarizmi C. Nasir al Din Al tusi D. Ibn Musa al khawarzmi
1123	Which quantity is not affected by a magnetic field.	A. Moving charge B. Stationary charge C. Current flowing in a conductor D. Charge in magnetic flux

1124	The circular motion of a particles with constant speed is.	A. Periodic and SHM B. Periodic but not SHM C. SHM and not periodic D. Neither periodic nor SHM
1125	Which of the following is not true.	A. Velocity can be nagative B. Velocity is a scalar C. Speed is a vector D. Speed can be negative
1126	The value of 'g' is affected by earth's	A. Non spherical shape B. Daily motion C. Volume D. Density
1127	The appearance of colures in their film is due to	A. Diffraction B. Dispersion C. Interference D. Polarization
1128	Plossi or symmetrical eye piece consists of	A. Two plano convex lenses with same focal length B. Two sets of doublets C. An achromatic double D. A spherical doublet
1129	A magnetic field is said to exist at a point if	A. A force is exerted on a charge placed at that point B. A magnetic pole exists at that point C. An ampersand current loop surrounds the point D. A force not felt by a static charge acts on a moving charge placed at that point
1130	The current passing through the switch s will be	A. Zero B. 3 A C. 4.5 A D. 10 A
1131	The work done in moving a body from one place to another in a gravitational field is independent of the	A. applied force B. Force of gravity C. Path followed by the body D. Force of earth
1132	Which of the following is renewable source of energy.	A. Oil B. Natural gas C. Uranium D. Sunlight
1133	The process due to which current flows only during alternate half cycle is known as.	A. Filtration B. saturation C. Half wave rectification D. Full wave rectification
1134	Which of the following is the magnitude of the gravitational force and is not the inherent property of the body.	A. Mass B. Weight C. Speed D. Length
1135	Which of the following are defects is lenses.	A. Chromatic aberration B. Spherical aberration C. Astigmation D. All of the above
1136	First law of thermodynamics is a	A. Boyle 's law B. Charles' law C. Law of energy conservation D. Steffen Boltzmann law
1137	When a ray of light enters a glass slab from air	A. Its frequency increases B. Its wavelength increases C. Neither frequency nor wavelength change D. Its wavelength decreases
1138	In which given process does the system always return to the original thermodynamic state.	A. Cyclic B. Adiabatic C. isothermal D. Isobaric
1139	When heat a supplied to a metallic sphere which one of the following changes will occur.	A. the mass of the sphere increases B. The volume of the sphere increases C. The density of the sphere increases D. The internal energy of the sphere increases

1140	A negative magnification always means the the image is.	A. Erect B. Real C. Virtual D. Inverted
1141	The first super conductor was discovered in.	A. 1905 B. 1911 C. 1917 D. 1923
1142	Which one of the following gates in a a universal gate.	A. OR B. AND C. NOT D. NAND
1143	The relation between refractive index an critical angle is.	A. sin C =1/n B. sin n = 1/C C. sin c = 1 D. n = sin C
1144	Vectors are ofhen spilt into two or more orthogonal components what is true of these components.	A. they are perpendicular B. They are parallel C. They are antiparallel D. They have same magnitude
1145	Sound of frequencies lower than 20 Hz are called.	A. Supersonics B. Infra sonics C. Ultrasonic D. Audible sound waves
1146	Which of the following is not a unit of plane angle.	A. Degree B. Radian C. Gradian D. Steradian
1147	The corpusclular nature of light was given by	A. Huygen B. Maxwell C. Newton D. Thomas Young
1148	What is the range of values of power factor.	A. 0 to -1 B. 0 to +1 C. 0 to 2 D. 2 to 3
1149	A body is in a static equilibrium, only when it is	A. Moving with uniform velocity B. Moving with variable velocity C. Moving with uniform acceleration D. at rest
1150	In order to reduce uncertainty in momentum one must use light of.	A. Short wavelength B. Large wavelength C. Wavelength of intermediate value D. Wavelength of any value
1151	In the concept of magnetic circuit, the quantity analogous to resistance in Ohm's law is.	A. Reactance B. Dipole C. Impedence D. Reluctance
1152	Which of the following is invariant under Galilean transformation.	A. Velocity B. Impulse C. Momentum D. Distance
1153	If a fluid does not wet a liquid surface, the angle of contact is.	A. 90^o B. less than 90 ^o C. * greater than 180 ^o D. between 90^o and 180 ^o
1154	The minimum angle of incidence for which total internal reflection can occur is called.	A. Right angle B. Acute angle C. Critical angle D. Obtuse angle
1155	Infrared radiation is also known as	A. Radio signals B. Heat radiation C. Magnetic resonance waves D. RADAR
1156	The first successful quantitative theory of atomic structure was formulate by	A. David Bohm B. Louis de Broglie C. Neil Bohr D. J Jj. Thomson
		A. Transfer of resistance B. Transfer of current

1157	Transistor stands for	B. Transfer of current C. Transfer of power D. Transfer of voltage
1158	The sensitiveness of a moving soil galvanometer can be increased by	A. Decreasing the number of turns of the coil B. Decreasing the area of the coil C. Increasing the couple per unit twist of the suspension D. Increasing the magnetic flux
1159	The special theory of relativity was presented in .	A. 1905 B. 1909 C. 1911 D. 1919
1160	The force on a point charge due to electromagnetic fields is called.	A. Lorenz force B. Gauss's force C. Newton's force D. Ampere's force
1161	On loading the prong of a tuning fork with wax. Its frequency.	A. Increases B. Decreases C. Remain unchanged D. May increase or decrease
1162	Resistance and resistivity of a substance	A. Increase with rise in temperature B. Decrease with rise in temperature C. Remains same at every temperature D. Increases at high voltage
1163	A capacitor of capacitance F micro is fully charged from a 20 V d.c supply what is the energy delivered by 20 V supply.	A. 2 mJ B. 10 m j C. 20 mJ D. 25 mj
1164	The half life of isotopes X is four days and its initial mass is 32 mg What mass of the isotope X will remain after twelve days.	A. 2 mg B. 4 mg C. 8 mg D. 18 mg
1165	The image formed on the film of a simple camera is.	A. Real inverted and diminished B. Virtual, upright, and diminished C. Virtual, upright and magnified D. Real, inverted and magnified
1166	The charge per unit volt which is a constant property of the system is known as the	A. Dielectric constant B. Permitivity C. Capactance D. Inductance
1167	Doppler's effect can be applied to.	A. Light wave only B. sound wave only C. Both light waves and sound waves D. Study various features of a wave
1168	interference and diffraction of light support the	A. Wave nature of light B. Transverse nature of light waves C. Quantum nature of light D. Electromagnetic nature of light
1169	Which of the following is used for reducing spherical aberrations in optical instruments.	A. Plano convex lens B. Concave lens C. Spherical mirrors D. Piane mirrors
1170	Electric Heater operates on the principle of.	A. electromagnetism B. Electromagnetic induction C. Electrolysis D. Momentum
1171	The follow of heat from hot body to cold body is an example of	A. Adiabatic process B. Isothermal process C. Reversible process D. Irreversible process
1172	Which of the following radiations can penetrate 20 cm thick steel.	A. Alpha particles B. Beta particles C. Gama particles D. Neutrons
1173	Stationary waves only a discrete set of frequencies are set up in a medium. This fact is called.	A. Harmonics B. Overtones C. Quantization of frequencies D. Superposition of frequencies
1174	When a solid is melting the temperature remains constant even through heat is being	A. Heat is being used to break up the intermolecular bonds B. Solid is a bad conductor of heat

1174	supplied because the	B. Solid is not absorbing any heat C. Molecules are moving faster D. Molecules are farther a part
1175	Which of the following is required for maintaining sustained chain reaction.	A. Neutrons B. Protons C. Electrons D. Photons
1176	Which one is not a semiconductor.	A. Go As B. Ge C. Sc D. In
1177	If the presence of air friction, the path of a projectile appears as.	A. Straight line B. Parabola C. Hyperbola D. zig zag
1178	The half life of a given radioactive isotope is 10 years The original mass of the isotope is 12 g What mass of this isotope remains un decayed after 20 years.	A. 0.5 g B. 1.2 g C. 3.0 g D. 6.0 g
1179	Two forces act together on an object the magnitude of their resultant force is minimum when they act at	A. 0 ^o B. 45^oC C. 90^o D. 180 ^o
1180	A wave reflected from the boundary of a denser medium will have phase change	A. 45 ^o B. 60^o C. 90 ^o D. 180 ^o
1181	A transformer is used to.	A. Convert D.C. into A.C. B. Convert A.C. in to D.C. C. Obtain A.C. voltage D. Enhance the power
1182	On which parameter, the heat capacity of a material depends upon.	A. Density of the material B. Specific heat of the material C. Temperature of the material D. Structure of the material
1183	Under an isothermal process internal energy of the system.	A. Increases B. Decreases C. Remain constant D. is Zero
1184	The amount of charge which can be placed on a conductor does not depend on.	A. The dielectric strength of the surrounding medium. B. Its capacitance C. Its potential D. Its size or shape
1185	What is used in an electric circuit to allow current in one direction only.	A. A fuse B. An ammeter C. A diode D. A relay
1186	High concentration of red blood cells increases the viscosity of blood from	A. 2 -3 time's that of water B. 3-4 times that of water C. 3 - 5 times that of water D. 4 -5 times that of water
1187	The typical value of forbidden energy gap in germinium is.	A. 0.7 eV B. 1.0 eV C. 1.4 eV D. 10 eV
1188	If a force of 10 N makes an angle of 30 ^{o} with x-axis its component is given by	A. 1.866 N B. 8.66 N C. 0.89 N D. 0.866 N
1189	The net charge on a condenser is	A. Zero B. Q/2 C. 2Q D. Infinity
1190	The critical mass of a fission reaction is.	A. The mass to start a nuclear fission reaction B. The minimum mass for chain reaction C. The size of the reactor core D. The size of fuel plus the size of moderator
		A. Kg m -1 s-2

1191	The SI unit of viscosity is.	B. kg m-1 s-1 C. kg ms=-1 D. kg m s-2
1192	Which instrument measures properties of light over a specific portion of the electromagnetic spectrum.	A. Photometer B. Spectrometer C. Hydrometer D. Lactometer
1193	Which of the following is a non contacting device that intercepts and measures thermal radiation.	A. Thermometer B. Pyrometer C. Voltmeter D. Lactometer
1194	Which of the following is more viscous	A. Air B. Honey C. Water D. Milk
1195	A dry battery can deliver 3,000 J energy to a small 2 W electric motor before the battery is exhausted for how minutes does the motor run.	A. 20 minutes B. 25 minutes C. 75 minutes D. 125 minutes
1196	A body travels with a speed greater than the speed of sound What would be the wave front shape.	A. Ellipitical B. Spherical C. Conical D. Parabolical
1197	Impulse is equal to.	A. F x t/2 B. \F x t /4 C. F x t D. F x t /m
1198	The dimensions of stress are	A. [MLT-1] B. [ML-1 T] C. [ML-1T-1] D. [ML-1T-2]
1199	The dot product of electric intensity and area of a surface is equal to.	A. Magnetic flux B. Electric flux C. Motional emf D. Induced emf
1200	What is the part of a simply D.C. motor that reverses the direction of current through the coil every half cycle.	A. Armature B. Brushes C. Commutator D. Slip rings
1201	The process of conversation of a photon into an electron and a position is called.	A. Pair annihilations B. Pair production C. Photoelectric effect D. Compton effect
1202	Magnetic effect of current was discovered by	A. Faraday B. Fleming C. Oersted D. Ampere
1203	The unit of magnetic induction is.	A. weber -metre B. weber -metre 2 C. weber-meter-2 D. weber-metre-1
1204	A transformer is needed to convert a mains 240 V supply into a 12 V supply it there are 200 turns on the primary coil, how many turns should there be on the secondary coil.	A. 100 B. 200 C. 400 D. 600
1205	An operational amplifier have how many input terminals.	A. One B. Two C. Three D. Four
1206	The SI unit of plane angle is	A. Radian B. Degree C. Steradian D. Radian per second
1207	When a liquid is hated retaining its liquid sate then its molecules gain.	A. K.E. B. P.E C. Heat energy D. Chemical energy
1208	The change in the dimensions of a body produced by the action of the deformation force is known as.	A. Strain B. Stress C. Tensile strain D. Tensile stress

1209	The electromagnetic waves propagated outing space from antenna of a transmitter are known as.	A. Infrared waves B. Light waves C. Radio waves D. X-rays
1210	What is the quantitative description of the effect of radiation on the living tissue.	A. Radiation dosimetry B. Radioactive dating C. Telemetry D. Dosage
1211	Which of the following circuits is used as local oscillator in radio receivers.	A. AF oscillator B. Phase Local Loop C. RF oscillator D. All of the above
1212	A boat loving at constant speed 'v' through still water experiences a total frictional drag F what is the power developed by the boat.	A. 1/2 Fv B. Fv C. 1/2 Fv2 D. Fv2
1213	When a light ray enters from air into water then its wavelength.	A. Increases B. Decreases C. Become infinity D. Remains constant
1214	If we use two diodes and a centre tapped transformer we will get.	A. A transistor B. An amplifier C. A half wave rectifier D. A full wave rectifier
1215	The centre of mass of a system is a point where an applied force causes the system to move.	A. With rotation B. Without rotation C. Fastly D. Slowly
1216	The half life of a radioactive substance as compared to its mean lif eis.	A. 30% B. 50% C. 70% D. 90%
1217	A frictionless heat engine can be 100% efficient only if its exhaust temperature is	A. Equal to the input temperature B. Less than the input temperature C. 0 ^oC D. 0 K
1218	x-rays cannot produce	A. Photoelectron B. Compton electron C. Electron positron pair D. All of these
1219	A neutron is in head on elastic collision with a stationary nitrogen nucleus The mass of nitrogen nucleus is 14 times that of a neutron The neutrons velocity after the collision is.	A. Less in magnitude than its intimal velocity B. Less in magnitude than the final velocity of the nitrogen atom C. Equal in magnitude to its initial velocity but in the opposite direction D. Greater in magnitude than its initial velocity
1220	In planetary motion	A. Angular speed remains constant B. Angular momentum remains constant C. Linear speed remains constant D. Linear momentum remains constant
1221	Electrostatic force as compared to gravitational force is	A. Zero B. infinite C. Very weak D. Very strong
1222	Mosley's law establishes the X-rays fluorescence of target element with is.	A. Atomic weight B. Atomic number C. Density D. Lattice constant
1223	The process is which volume of the system remains constant.	A. Isobaric process B. Isochoric process C. Isothermal process D. Adiatatic process
1224	Under steady state the temperature of a body	A. Increase's with time B. Decreases with time C. Does not charge with time D. None of the above
		A. 1 m B. 10 m

1225	If a wave vibrates 10 times in one second with a speed of 10 m s-1 the wavelength will be.	C. 20 m D. 100 m
1226	The mass that appears in Newton's second law is known as.	A. Rest mass B. Gravitational mass C. Inertial mass D. Weight
1227	An object moves 5.0 m north and then 3.0 m south . Find both the distance travelled and the magnitude of the displacement vector.	A. 2.0 m, 8.0 m B. 8.0 m, 2.0 m C. 8.0 m, 8.0 m D. 2.0 m, 2.0 m
1228	Alternating current generator consists of a coil and a pair of.	A. Split rings B. Slip rings C. Metal rings D. Copper rings
1229	A capacitor is connected to a battery The fore of attraction between the plate when the separation between them is halved will	A. Remain the same B. Become twice C. Become 4 times D. Become 8 times
1230	The spin angular momentum and orbital angular momentum are usually differentiated in terms of.	A. Radius of bodies B. Mass of bodies C. Torques of bodies D. Momentum of bodes
1231	The maximum number of rays required by a lens to form an image are	A. 2 B. 3 C. 4 D. Infinite
1232	In a vacuum flask the vacuum prevents heat transfer by	A. Radiation only B. Conduction only C. Convection only D. Conduction and convection
1233	As electric field intensity is a potential gradient, if may be expressed ni the units of NC-1 or	A. volt B. Volt metre C. Volt per metre D. Joule
1234	On which temperature scale a degree is 1/180 of the interval between the freezing point and the boiling point.	A. Celsius scale B. Fahrenheit scales C. Rankine scale D. Kelvin scale
1235	A new class of ceramics materials was discovered in.	A. 1938 B. 1958 C. 1978 D. 1986
1236	Conductance is the reciprocal of	A. Inductance B. Capacitance C. Resistance D. Admittance
1237	Which of the following is basic transistor configuration.	A. CB B. CC C. CE D. All of these
1238	Condenser is used	A. To produce charge B. To change the direction of current C. To collect the charge D. As a good conductor of electricity
1239	The wavelength of Pascha series lies is the	A. Visible region B. Ultraviolet region C. Infrared region D. Invisible region
1240	Under which of the following conditions current in a circuit is wattles.	A. When inductance in the circuit is zero B. When resistance in the circuit is zero C. When current is alternating D. When resistance and inductance both are zero
1241	Which one of the following has maximum frequency.	A. Visible light B. Gama rays C. Ultraviolet rays D. Infrared rays
1242	When white light is incident on a diffraction grating, the light that will eb deviated from central image will be	A. White B. Yellow C. Red

	central image will be.	C. Red D. Blue
1243	Supplementary units radian and steradian were established for	A. Density B. Viscosity C. electric intensity D. Geometrical quantities
1244	When a body acceleatres.	A. Its direction always chances B. It mass always changes C. It velocity always changes D. It falls towards the earth
1245	Which equation in electromagnetism describe the magnetic field B generated by an electric current.	A. ampere's circuital law B. Bio savart law C. Gauss's law for electromagnetism D. Coulomb's law
1246	The measure of how strongly a material oppose the flow of electrical current is known as	A. Electrical resistivity B. Specific electrical resistivity C. Volume resistivity D. All of the above
1247	If there are no frictional effects, the mechanical energy of a system executing simple harmonic motion.	A. Changes with time B. Is variable C. Is constant D. Is not conserved
1248	A disturbance that travels through space and time usually accompanied by energy transfer is called.	A. sound B. Wave C. Echo D. Frequency
1249	The splitting of atomic energy levels and the associated spectrum lines when the atoms are placed in a magnetic field is called.	A. The photoelectric effect B. The zeeman effect C. The Compton effect D. Quantum effect
1250	The charge on a helium nucleus is equal to the charge of.	A. Two electrons B. Two protons C. Two neutrons D. One proton
1251	How do solar heat and light reach the Earth.	A. By radiation B. By convection C. By conduction D. By conduction and convection
1252	If the average velocity of an object zero in some time interval, the displacement of the object for that interval will be.	A. Infinite B. Zero C. Increasing D. Decreasing
1253	The resultant magnitude of two vectors	A. Is always positive B. Can never be zero C. Can be negative positive or zero D. Is usually zero
1254	The phenomenon in which a photon of frequency 'f' is scattered by an electron and the scattered photon has frequency f <f is known as.	A. Pair production B. Pair annihilations C. Photoelectric effect D. Compton's effect
1255	The SI unit of magnetic flux is.	A. N A-1 B. N m-1 A C. N m A-1 D. N m-1 A-1
1256	There are how many types of forces or interactions.	A. Two B. Three C. Four D. Five
1257	If the period of a wave motion is 2 s and the wave speed is 4 cm s-1 then its frequency is	A. 1/8 C s-1 B. 1/2 C s-1 C. 2 C s-1 D. 8 C s-1
1258	When the temperature of source and sink of a heat engine become equal the entropy change will be.	A. Zero B. Maximum C. Minimum D. Negative
1259	Shadow formation and the pin hole camera illustrate the	A. Phenomenon of reflection B. Phenomenon of refraction C. Phenomenon of total internal reflection D. Rectilinear propagation of light
		A. Free electrons

1260	In a n-type material there is an excess of.	A. Free electrons B. Holes C. Quarks D. Measons
1261	A force passing through the centre of gravity of a body	A. Causes its translational motion B. Causes its rotational motion C. Holds the body in equilibrium D. Produces both translational and rotational motion.
1262	In what form is the energy stored in an inductor.	A. Magnetic B. electrostatic C. Magnetic and electrostatic D. All of the above
1263	The force applied on unit area of a body to produce any change in shape volume or length is known as.	A. Strain B. Stress C. Tensile strain D. Tensile stress
1264	Work has the same dimensions as that of	A. Power B. Liner momentum C. Angular momentum D. Torque
1265	When velocity of the body is doubled, which one is doubled too.	A. K.E. B. P.E C. Momentum D. Acceleration
1266	For an A.C. circuit the power factor is	A. Always les than one B. Always greater than one C. Always equal to one D. Absent
1267	The ratio of stress to strain is called.	A. Bulk modulus B. Young's modulus C. Modulus of elasticity D. Shear modulus
1268	Which one of the following materials has negative temperature coefficient.	A. Conductors B. Semiconductors C. Insulators D. Covalent bonds
1269	The half life of a radioactive substance is 6 years What is the time taken by 12 g of this substance to decay completely.	A. 12 years B. 24 years C. 48 years D. infinity
1270	In a series resonant circuit, the current at resonance is.	A. Maximum B. Minimum C. Zero D. Sometimes maximum and sometimes minimum
1271	The impedance of a pure anti resonant circuit at resonance is.	A. Zero B. Unity C. Infinity D. 0.5
1272	The internal resistance of a primary cell depends upon the.	A. Current dawn form the cell B. Concentration of the solution C. distance between cell electrodes D. All of the above
1273	Half life of a radioactive elements 10 minutes If the initial cont. rate is 368 counts per minute for what time count rate reaches 32 counts per minute.	A. 20 minutes B. 40 minutes C. 80 minutes D. 120 minutes
1274	Chromatic aberration can be removed by using.	A. Convex lens B. Two convex lenses C. Concave lens D. Combination of a convex lens and a concave lens
1275	The real depth of a swimming pool is 2 m What is the apparent depth of the pool if the refractive index of water is 1.33	A. 1.0 m B. 1.5 cm C. 2.0 m D. 2.5 m
1276	Which of the following gives discrete emission spectrum.	A. Sun B. Candle C. Incandescent filament D. Mercury vapour lamp
		A. The moon in its orbit

1277	Which of the following will not acceleation.	B. A tennis ball rebounding from ground C. A store in free fall D. A car in which the engine thrust is equal to the friction
1278	If pressure and temperature of an ideal gas is doubled and volume is halved, the number of the gas molecules.	A. Become half B. Remain constant C. Become double D. Become three times
1279	Telecommunication by Optical fibers is done by	A. Single mode step index fibre B. Multimode step index fibre C. Multimode graded index fibre D. All of the above
1280	Which of the following is an example band spectra.	A. Black body radiation spectrum B. Atomic spectra C. Molecular spectra D. Anomalous spectrum
1281	The force of gravity between two objects does not depend upon the.	A. Constant of gravitation B. Separation C. Product of their masses D. Sum of their masses
1282	Which both elements are good for nuclear fission.	A. Thorium an uranium B. Thorium and radium C. Plutonium and uranium D. Plutonium and throrium
1283	If we use two diodes and a centre tapped transformer we eill get	A. Transistor B. Amplifier C. Half wave rectifier D. Full wave rectifier
1284	What is the refractive power of cornea in humans.	A. 13 dioptres B. 23 diaoptres C. 33 dioptres D. 43 dioptres
1285	When a force is applied on a body several effects are possible which of the following effect could not occur.	A. The body speeds up B. The body changes direction C. The pressure on the body increases D. The mass of the body decreases
1286	If a ray of light in glass in incident on an air surface at an angle greater than the critical angle, the ray will	A. Refract only B. Reflect only C. Partially refract and partially reflect D. Diffract only
1287	A magnetic pole	A. Is made of a magnetic material B. Is a factious quantity C. Is defined in terms of Ampere's law D. Cannot be detected
1288	The coulomb's law is valid for the charges which are.	A. Moving and point charges B. Moving and non point charges C. Stationary and point charges D. Stationary and large size charges
1289	Which type of radiation would be stopped completely by a thin piece of cardboard.	A. Alpha particles B. Beta particles C. Gama rays D. X-rays
1290	In which form energy in an inductance coil is stored.	A. Heat energy B. Light energy C. Magnetic energy D. Nuclear energy
1291	The instantaneous voltage across a pure inductance.	A. Leads the current by 90 ^o in phase B. Lags the current by 90 ^o in phase C. Is in phase with the current D. Leads the current by a phase angle which depends on the frequency
1292	A solid in which there is no regular arrangement of molecules.	A. Amorphous solids B. Glassy solids C. Crystalline solids D. Polymerization
1293	The path of Gama rays in Wilson cloud chamber is	A. Irregular B. Dense and straight C. Thin and continuous

		D. Thin and discontinuous
1294	A heater which is to be used on a 250 V mains circuit, has a 5 A fuse in its plug Which of the following is the most powerful heater that can be used with this fuse.	A. 150 W B. 500 W C. 1,000 W D. 2,000 W
1295	During transition, atom cannot emit	A. Visible light B. Ultraviolet radiation C. Infrared radiations D. gama rays
1296	When a point charge which is responsible for a force being exerted on another point charge is suddenly moved the second charge experience.	A. Nor charge of force B. An instantaneous change of force C. A sudden change of force of some later time D. an increase of its charge because of induction.
1297	Internal energy of a gas decreased when	A. It gains heat B. Change in cycle C. Change in adiatatic D. Change in reversible
1298	How many calories of heat are required to evaporate completely 1 g of ice at 0 ^{o}C	A. 480 calories B. 720 calories C. 940 calories D. 1170 calories
1299	What happens to a soap bubble, when some charge is given to it.	A. It collapses B. It increases in size C. It decreases in size D. It feels nothing
1300	Distance covered by a freely failing body in 2 s will be.	A. 19.6 m B. 4.m C. 39.2 m D. 44.1 m
1301	If two non zero vectors are perpendicular to each other then their scalar product is equal to.	A. -1 B. 1 C. 0 D. Infinity
1302	LASER is a device which can produce.	A. Monochromatic beam of light B. Coherent beam of light C. An intense beam of light D. All of the above
1303	A junction between P-Type and n-type materials is called.	A. Ampilifier B. Transistor C. Rectifier D. Diode
1304	Which of the following is defined as the amount of heat required to raise the temperature of 1 g of water by 1 ^{o}C	A. Joule B. BTO C. Electron volt D. Calorie
1305	The power of lens in dioptres is	A. Its focal length in meters B. The reciprocal of its focal length in metres C. The reciprocal of length in metres D. The reciprocal of length in centimetres
1306	Which one of the following is not true.	A. velocity can be negative B. velocity is a vector C. Speed is a sccalar D. Speed can be negative
1307	Andrews isothermal helps to messure	A. Boiling point B. Boyle's temperature C. Temperature of inversion D. Critical temperature
1308	The magnitude of induced emf during electromagnetic induction is controlled by.	A. Magnetic flux B. electric flux C. Electric field D. Magnetic field
1309	A monochromatic light beam when passed through a prism is.	A. Diffracted B. Devlated C. Polarized D. Dispersed
1310	The hydrogen filled balloon possesses	A. P.E B. K.E C. Heat energy

		D. Elastic energy
1311	The rate of change of angular momentum of a body is equal to.	A. Applied force B. Moment of inertial C. Applied torque D. Impulsive force
1312	LASER beam my be measure very large distance because it is.	A. Inidirectional B. coherent C. Monochromatic D. Not absorbed
1313	Which of the following is used as a remedy for defect of hypermetropia.	A. Convex lens B. Concave lens C. Cylindrical lens D. Bifocal length lens
1314	The law of gravitation was introduced by	A. Huygen B. Boyle C. Newton D. Pascal
1315	The total energy of the hydrogen atom is	A. zero B. Infinite C. positive D. Negative
1316	Certain gas are called permanent gases because.	A. They cannot be liquified B. They are perfect gases C. The critical temperatures are low D. their boiling points are low
1317	What is emitted by the hot metal filament in a cathode ray tube.	A. Alpha particles B. Electrons C. Protons D. X rays
1318	A leser beam may be used to measure very large distance because it is.	A. Unidirectional B. Cohernet C. Monochromatic D. Not absorbed
1319	An inductor may store energy in	A. Its magnetic field B. Its electric field C. Its coils D. A neighboring circuit
1320	The decay process in which an unstable nucleus splits into two fragments of comparable mass is known as.	A. Nuclear fission B. nuclear fusion C. Radioactivity D. Carbon dating
1321	A steel of which material should be placed between the plates of a parallel plate capacitor in order to increase its capacitance.	A. tin B. Iron C. Copper D. Mica
1322	Why a positively charged object is made neutral by someone touching it.	A. Electrons flow from the object B. Protons flow onto the object C. Protons flow from the object D. Protons flow onto the object
1323	Mutual inductance has a practical role in the performance of the	A. Radiochoke B. Transformer C. Generator D. Trnasistor
1324	A radio tuning capacitor is.	A. Cylindrical capacitor B. Spherical capacitor C. parallel plates capacitor D. Cylindrical condenser
1325	A fundamental equation in fluid dynamics that relates pressure to fluid speed and height is.	A. Equation of continuity B. Bernoulli's equation C. Stoke's equation D. Mass energy eqation.
1326	Which of the following properties of light does not very with the nature of the medium.	A. Amplitude B. Frequency C. Wavelength D. Time period
1327	Ultrasonic sound waves	A. Can be heard by a normal human ear B. Can be heard with the help of hearing apparatus C. Can be heard with the help of microphone D. cannot be heard

1328	In comparison with the electrostatic force between two electrons the electrostatic force between two protons is.	A. Zero B. Smaller C. Greater D. Same
1329	When two waves travelling through the same medium arrive at the same point 180 ^{o} out of phase, they give rise to.	A. Polarization B. Destructive interference C. Refraction D. Constructive interference
1330	Any transparent medium bounded by one or two spherical surfaces is called	A. Prism B. Lens C. Plane mirror D. Grating
1331	The current passing across a p-n junction due to minority charge carriers is called	A. Reverse current B. Forward current C. Leakage current D. Both a and b
1332	Linear magnification is equal to the ratio of.	A. Size of the object to the size of the image B. Size of the image to the size of the object C. size of the object focal length D. Size of the image focal length
1333	A device used to detect and measure charge is.	A. A voltmeter B. An ammeter C. An electroscope D. An amplifier
1334	A plug connoted to a table lamp contains a 3 A fuse Why is the fuse needed.	A. To increase the resistance of the circuit B. To make it easier for the current to flow C. To protect the wiring form overheating D. To reduce the voltage across thelamp
1335	A given mass of air occupies 12 m2 at normal atmospheric pressure if the pressure is increased to 4 times the original value without changing the temperature what volume will the air occupy.	A. 3 cm3 B. 6 cm3 C. 9 cm3 D. 12 cm3
1336	What is the scale for measurement of Banbridge mass spectrograph.	A. Linear B. Inverse C. Exponential D. Logarithmic
1337	Diffraction is the property according to which light waves.	A. Change their direction on entering a different medium B. Produce chemical effects C. Bend round the corners D. Bend towards the centre
1338	Two stem engine A and B have their sources at 900 K and 600 K and their sinks are at 450 K and 300 K respectively.	A. They are equally efficient B. A is less efficient than B C. a is more efficient than B D. Their efficiencies cannot be determined
1339	The period of a geostationary satellite is.	A. 32 hours B. 72 hours C. 48 hours D. 96 hours
1340	A body of mass 1 kg hanging with a spring of spring constant 60 N m-1 is rotation in a horizontal circle The values of angular frequency will be.	A. 80 .94 Hz B. 89. 4 Hz C. 98. 4 Hz D. 108 . 6 Hz
1341	Plasma exists in	A. Electric bulbs B. Tube light C. Energy savers D. Fluorescent tubes
1342	If a gas does 10 J of external work white expanding then the change in internal energy is equal to.	A. 0 J B. 10 J C. -10 J D. 100 J
1343	The specific heat of an ideal gas values as	A. To B. T1 C. T2 D. T3

1344	A capacitor is prefect insulator for	A. Direct current B. Alternating current C. Direct as well as alternating current D. Pulsating current
1345	the amplitude of a wave indicates	A. Wavelength B. Frequency C. Intensity of wave D. Nature of wave
1346	Spherical aberration can be removed by using	A. Concave lens B. Convex lens C. By limiting the number of rays using a stopper D. By using a concave convex lens
1347	Polarized sunglasses decrease glare on a sunny day because they	A. Completely absorb light B. Block a portion of light C. Have a special colour D. refract light
1348	The product of velocity and cross sectional are for a liquid flowing through a pipe is a measure of the.	A. Rate of flow B. Volume of fluid C. Fluid pressure D. Fluid friction
1349	What is the power rating of a lamp connected to a 12 V source when it carries 2.5 A.	A. 4.8 W B. 14.5 W C. 30 W D. 60 W
1350	In a Geiger Marsden experiment why do the great majority of the Alpha particles pass straight through the metal foil.	A. Atomic nuclei may contain neutrons B. Atoms are electrically neutral C. Atoms are largely empty space D. Atoms have positively charged nuclei
1351	Refraction contributes to the formation of.	A. Rainbows only B. Mirages only C. Echo D. Rainbows and mirages
1352	The effective resistance offered by the resistance capacitance and inductance in an A.C. circuit is known as	A. Impedance B. Resistance C. Capacitance D. Reactance
1353	The potential due to which an electron is lifted from gerund state to excited state is.	A. Potential gradient B. excitation potential C. Ionization potential D. Potential difference
1354	Difference between Cp and Cv is equal to	A. General gas constant B. Planck's conatant C. Molar gas constant D. Boltzmann's constant
1355	The escape velocity from the earth's surface is	A. 1.2 km s-1 B. 1.7 km s-1 C. 10.2 km s-1 D. 11.2 km s-1
1356	In a projectile motion, the horizontal range depends upon.	A. Initial velocity B. Velocity at the highest position C. angel of projection D. Vertical component of velocity
1357	Which of the following pairs represent units of the same physical quantity.	A. Kelvin and joule B. Kelvin and calrorie C. Newton and calorie D. Joule and calorie
1358	The phenomenon of exactly zero electrical resistance occurring in certain materials below a characteristics temperature is called.	A. Resistivity B. Conductivity C. Super conductivity D. Volume resistivity
1359	The phenomenon of Brownian motion shows that	A. Molecules exist and can be seen as bright dots moving about B. Molecules moves about randomly at highs speeds C. Smoke particles behaves as molecules D. Smoke particles can be used as models of air molecues.
		A. To complete an electrical circuit. B. To prevent the fire from

1360	Why should the metal casing of an electrical fire be earthen.	overheating C. To reduce the risk of electric shocks D. To stope the casing from getting too not to touch
1361	Which of the following be used for redeciding mechanical aberration is optical instruments.	A. Plane mirrors B. Spherical mirrors C. Concave lenses D. Plano convex lenses
1362	Restoring force in SHM is.	A. Centripetal B. Frictional C. Conservative D. Non conservative
1363	Light travels perpendicular to electric and magnetic fields and requires no material medium, was proposed by.	A. Einstein B. Max planck C. Maxwell D. Bragg
1364	Which of the following is the cause of failure of a lens to form a sharp and district image of a white object.	A. Spherical aberration B. Chromatic aberration C. Distortion D. Astigmatism
1365	In a galvanometer the enameled copper wire is wound on.	A. An insulator B. A non magnetic material C. A magnetic material D. A conductor
1366	Among different elements of the periodic table which of the following atoms is the simplest.	A. Carbon B. Oxygen C. Hydrogen D. Nitrogen
1367	Which circuit elements has two stable states and can be used to store information.	A. Flip flop or latch B. Logic gate C. Oscillator D. Amplifier
1368	The maximum energy of photons emitted from ab X rays tube is certain to be increased by	A. Increasing the voltage across the tube B. Decreasing the voltage across the tube C. Heating the metal target D. Putting a barrier in the way of photons
1369	If average acceleration is equal to instantaneous acceleration then the body's said to be moving.	A. Negative acceleration B. Positive acceleration C. uniform acceleration D. Variable acceleration
1370	With the increase of temperature, teh pitch of an organ pipe	A. Increase B. Descrease C. Remain the same D. May increase or decrease
1371	In open circuit electromotive force equal to	A. Current B. Resistance C. Voltage D. Inductence
1372	Ultra sonics are the	A. Frequencies in the audible range B. Frequencies greater than 20 Hz C. Frequencies greater than 20 KHz D. Frequency lower than 20 KHz
1373	In CE amplifier phased reversal occurs when the output voltage is taken between	A. Base and collector B. Base and emitter C. Collector and emitter D. None of the terminals
1374	The capacitance of a capacitor increases with a decreases in.	A. Plate area B. Permitivity C. Plate separation D. Dielectric constant
1375	Longitudinal waves cannot be	A. Reflected B. Difracted C. Dispersed D. Polarized
1376	Which current can pass through a capacitor continuously.	A. Alternating current B. Direct current C. Eddy current D. Pulsating current

		D. Pulsating current
1377	Which of the following is conserved in SHM	A. K.E. B. P.E C. Total energy D. Electrical energy
1378	What is the properly of materials that responds at an atomic or subatomic level to an applied magnetic field.	A. Magnetism B. electroplating C. Diamagnetism D. Electrolysis
1379	The work done is moving a very small charge in an electric field from one point to another is	A. Independent of the path B. Equal to the potential difference between the two points. C. Measured in V m-1 D. Measured in J c-1
1380	Solids have	A. Fixed shape only B. Fixed volume only C. Fixed shape and volume D. No fixed shape and volume
1381	Which parameter determines the brightness of a light source sensed by an eye.	A. Light energy entering the eye B. Wavelength of light C. Total radiant flux entering the eye D. Total luminous flux entering the eye
1382	tuning a radio set is an example of.	A. Musical resonance B. Electrical resonance C. Mechanical resonance D. Damping
1383	The phenomenon of total internal reflection occurs in	A. Optical fibre B. Rainbow C. Mirage D. All of these
1384	Which method of charging is involved in making lightning.	A. Induction B. Friction C. Contact D. Convection
1385	Two sources of sound are said to be in resonance when.	A. They look like similar B. They produce sound of same frequency C. They are enacted by the same agent D. They differ from each other
1386	When a tennis balls is hit by a racket inasmuch a way that it spins as well as moves forward the velocity of the air on one side of the ball	A. Increases B. Decreases C. Remain constant D. Become zero
1387	Which factor remains constant in a transformer.	A. Current B. Voltage C. Power D. Frequency
1388	Palaroids can be used	A. To control headlight glare in right driving B. To determine the concentration of the optically active substances C. In curtain less windows to adjust the amount of light D. all of the above
1389	Who identified the first series in the spectrum of hydrogen.	A. Lyman B. Balmer C. Pfund D. Brackett
1390	The path of electron in Rutherford atomic model according to classical theory a.	A. Parabolic B. Straight line C. Spiral D. Circular
1391	A forward based p-n semiconductor diode is called.	A. Photodiode B. Photovoltaic cell C. Amplifier D. Ligh emitted diode
1392	Planets move around the sun due to.	A. Centrifugal force B. Centripetal force C. Gravitational pull between them D. Frictional force between them

1393	A mercury in glass thermometer and thermocouple thermometer are both calibrated using the same fixed point of 0 oC and 100 oc when both temperature are used to measure the temperature of a body the temperature measured on both thermometers will be exactly the same	A. For all temperatures between 0 oC and 100 o C only B. Only are the fixed points C. For all temperatures at all times D. When converted to the Kelvin scale
1394	Maximum detail of an object can be seen by a microscope when the object is illuminated by light of.	A. Longer wavelegth B. Shorter wavelength C. X -rays D. Gama rays
1395	The strength of photo electric current depends upon.	A. Intensity of incident light B. Frequency of incident light C. Angle of incident light D. Distance between anode and cathode
1396	X-rays travel with	A. The speed of light B. The speed of sound C. The speed of 3,000 m s-1 D. The speed of 3,500 m s-1
1397	In Compton's effect it was considered that X-rays consist of	A. Electrons B. Holes C. Neutrons D. Protons
1398	Which BJT configurations used for signal inversion.	A. CE B. CC C. CB D. BE
1399	Amorphous solids are also called.	A. Crystalline solids B. Glassy solids C. Polymeric solids D. Polymers
1400	In an electronic transition atom cannot emit	A. Gama rays B. Visible rays C. Infrared rays D. Ultraviolet rays
1401	A complete amplifier circuit made on a silicon chip and enclosed in a small capsule is	A. Inductor B. Metal detector C. Diode D. Operational amplifier
1402	An instrument which can float in the liquid to be tested and by means of which the specific gravity of the liquid may be determined is.	A. Hydrometer B. Barometer C. Siphon D. Lactometer
1403	A wave which consists of a single, non repetitive disturbance is called a	A. Continous wave B. Pulse C. Longitudinal wave D. Transverse wave
1404	Which electrical component may be used to store electrical energy in a time delay circuit	A. Capacitor B. Light dependent resistor C. Resistor D. Thermistor
1405	A 10 kg rocket fragment falling towards the earth has a net downward acceleration of 5 ms - 2 The net downward force acting on the fragment is	A. 5 N B. 10 N C. 50 N D. 105 N
1406	A diode cn be used as	A. Amplifier B. Rectifier C. Oscillator D. Transistor
1407	The unit generally used for measuring astronomical distances is.	A. Parsecs B. Light year C. Metre D. Kilometer
1408	A CE amplifier with by passed emitter resistor is an example of.	A. Current series feedback B. Voltage sires feed back C. Current shunt feedback D. Voltage shunt feed back
1409	The ionization energy for hydrogen atom is	A. -11.6 eV B. -12.6 eV C. -13.6 eV D. -19.6 eV

1410	Artificial polymers are made by a chemical reaction known as.	A. Crystallization B. Electroplating C. Polymerization D. Polarization
1411	If a body is moving with constant velocity then	A. Its acceleration is zero B. Its direction may be changing C. Its speed may be changing D. Its acceleration is constant
1412	The horizontal distance of a projectile from the point of launch to the point of impacts is called.	A. Height of projectile B. Range of projectile C. Path of projectile D. Angle of projectile
1413	The image of an object 5 mm high is only 1 cm high. The magnification of the lens is	A. 0.2 B. 0.5 C. 1 D. 2
1414	The image of distant object as seen through as astronomical telescope is.	A. Real and inverted B. Virtual and inverted C. Real and erect D. Virtual and erect
1415	In radiotherapy X-rays are used to.	A. Treat cancer B. Delect bone fracture C. Cure heart diseasee D. All of the above
1416	Which of the following is not an elastic collision	A. A man jumps on a cart B. A bullet embedded in a block C. Colliding of two glass balls D. Colliding of two tennis balls
1417	Refractive index of a medium is define das.	A. speed of light in vaccum/speed of light in medium B. Speed of light in medium/Speed of light in vacuum C. Speed o flight in air/speed of light in medium D. Speed of light in medium/Speed of light in air
1418	When a sound source moves towards a stationary observer there is.	A. An apparent increase in wavelength B. An apparent increase in frequency C. an apparent decreases in frequency D. A change in the velocity of the sound
1419	The energy following per second through a unit area held perpendicular to the direction of wave is.	A. The loudness of the sound waves B. The pitch of the sound waves C. The intensity level of sound waves D. The intensity of sound waves
1420	Interference effects of light were verified by	A. Thomas Young B. Newton C. Bragg D. Huygen
1421	The usefulness of X rays is largely due to their	A. Mass B. Density C. Volume D. Penetrating power
1422	If a gymnast sitting on a rotating stool with his arms out stretched lowers his arms.	A. The angular speed increases B. The angular speed decreased C. The angular speed becomes zero D. The angular speed becomes constant
1423	The fluid which is incompressible and non viscous is called.	A. Viscous fluid B. Nonideal fluid C. Ideal fluid D. Perfect fluid
1424	The basic circuit element is a D.C. circuit is	A. An inductor B. A resistor C. A capacitor D. A battery
1425	What is the mean free path in a gas.	A. The distance travelled by a molecule before hitting a wall B. the average distance travelled by a molecule in one second C. the average distance travelled by molecules in one second

		D. The root mean square velocity
1426	The emission of electrons from a metal surface when exposed to light of suitable frequency is called.	A. Pair production B. Compton effect C. Photo electric effect D. Zeeman effect
1427	In case of a convex lens when object is placed away from 2F, image is formed.	A. at F B. at 2F C. away from 2 F D. Between F and 2 F
1428	Resonance phenomenon in a vibrating body	A. May increase the amplitude B. May decrease the amplitude C. May not affected the amplitude D. All of the above
1429	The necessary condition for nuclear fusion is.	A. High temperature and high pressure. B. Low temperature and high pressure C. Low temperature and low pressure D. High temperature and low pressure.
1430	How does heat transfer between objects.	A. From cold to hot objects B. From hot to cold objects C. By electromagnetic radiations D. From hotter to hottest objects.
1431	The terminal velocity in case of spherical droplet is directly proportional to.	A. Square of the radius of the droplet B. Radius of the droplet C. Cube of the radius of the droplet D. Half of the Radius of the droplet half
1432	Light year is a unit of	A. Light B. Velocity C. Time D. Distance
1433	In order to measure the true emf of an electrolytic cell it is necessary that.	A. The measurement be made while charging the cell B. No current be drawn from the cell C. The cell be connected into a type circuit D. The cell be connected into a parallel type circuit
1434	The ripple tank is used to study various features of	A. Wave phenomenon B. Interferences C. Doppler's effect D. Reverberation
1435	Which base units would be needed to express the SI unit of potential difference.	A. Kg and A only B. m , s and A C. kg, m, s and A D. mg, m and s
1436	When light enters a denser medium	A. Its speed slows down B. Its speed increases C. It is totally reflected D. Its speed remains unchanged
1437	Which one among these contacts in a transistor is non rectifying.	A. Base B. Emitter C. Collector D. None of these
1438	Which law states that an induced current is always in such a direction as to oppose the motion or change causing it.	A. Ampere's law B. Gauss's law C. Lenz's law D. Kirchoff's law
1439	Which of the following phenomenon occurs when two sound waves of equal amplitude and different frequencies travel through the same region.	A. Resonance B. Doppler's effect C. Beats D. Echo
1440	On which property of lens, longitudinal chromatic aberration depend upon	A. Resolving power B. Dispersive power C. Magnifying power D. Radius of curvature
1441	Which of the following is not a mode of radioactive decay	A. Nuclear fusion B. Alpha decay C. Electron capture D. Positron emission

1442	Which of the following is nearly monochromatic	A. Light from sodium lamp B. Light from candle C. Light from gas lamp D. Light from sun
1443	A factory buy 100 g of a radioactive chemical with a half life of 5 years which decays to a stable compound How much of the chemical will still be radioactive 10 years time.	A. 25 g B. 50 g C. 75 g D. 100 g
1444	The phenomenon of regular refraction of light illustrates taht.	A. Light is reflected in one direction only B. Light is reflected through a range of different angles C. Light is refracted in one direction only D. Light is refracted through a range of different angles.
1445	When forwarded bias is applied to a junction diode it.	A. Increases the potential barrier B. Decreases the potential barrier C. Reduces the majority carrier current to zero D. Reduces the minority carrier current to zero
1446	The phenomenon is which the wavelength of scattered X-rays is larger than the incident X-rays is known as.	A. Zeeman's effect B. Photoelectric effect C. Compton's effect D. Annihilation of matter
1447	Every point on any wave front can be considered as a new source of waves This statement is known as.	A. Huygen's wave theory B. Michelson's wave theory C. Remain's effect D. Rayligh's wave theory
1448	Any substance that can flow is a	A. Solid B. Gas only C. liquid only D. Fluid
1449	Two convex lenses of equal focal length 'f' are placed in contact, the resultant focal length is	A. Zero B. 1 C. 2f D. f/2
1450	A man of mass 100 kg is standing in an elevator. The net force acting on the man reads its weight when the elevator is going up with acceleration 4 m s-2 would be.	A. 100 N B. 590 N C. 490 N D. 980 N
1451	A tank 3 m long 1 m wide and 0.5 m deep is filled with oil which weight 12,000 N . The pressure on the base of the tank due to oil is.	A. 1,000 Pa B. 4,000 Pa C. 3,000 Pa D. 6,000 Pa
1452	The hyperfine lines in the spectrum relates to	A. Stark effect B. Zeeman effect C. Lande's spliting D. Nuclear magnetic spin
1453	A transistor can be used as	A. Oscillator B. Amplifier C. Switch D. Both a and c
1454	a spectrometer is used to study	A. Spectrum B. Waveform C. Interference D. Diffraction
1455	A liquid surface tend to contract this phenomenon is due to	A. Viscosity B. Diffusion C. Density D. surface tension
1456	It the slope of velocity time graph is increasing with time the body is said to have.	A. Positive acceleration B. Average acceleeration C. Uniform acceleration D. Retardation
1457	Which technique uses underwater sound propagation to detect and locate submerged objects.	A. RADAR B. LIDAR C. SONAR D. LASER
1458	One rem is equal to	A. 0.1 Sv B. 0.01 Sv

1458	One rem is equal to.	C. 0.001 Sv D. 0.0001 SV
1459	The nucleus of tritium is called.	A. Proton B. Triton C. Deuleron D. Positron
1460	Charge carriers in thermocouples are.	A. Anions B. Cations C. Electrons D. Protons
1461	How the small bulbs used for decoration purposes are connected.	A. In parallel B. In series C. In mixed order D. In vertical position
1462	The half life of radium -226 is	A. 1620 years B. 45 x 10⁹ years C. 3.8 days D. 23.5 minutes
1463	Which one of the following is not a dimensionless quantity.	A. Radian B. pi C. Decibel D. Force
1464	A charge kept at the centre of a shell The shell has charge Q and radius R The force on the central charge due to shell is	A. in the upward direction B. Towards left C. Towards right D. Zero
1465	The phenomenon of beats takes place due to	A. Longitudinal waves B. Transverse waves C. Stationary waves D. Both a and b
1466	What is world's average surface air temperature.	A. 5 ^oC B. 10^oC C. 15 ^oC D. 20 ^oC
1467	Which of the following are defects in human eye.	A. Myopia B. Hypermetropia C. Presbyopia D. All of these
1468	The magnitude of resultant of three forces is 3. Its x -component is 2 and y component is 1, then its z-component will be.	A. 1 B. 2 C. 3 D. 4
1469	When Electric current flows through the wire it increases.	A. P.E of the atoms B. K.E. of the atomss C. Atomic size D. Number of protons
1470	On which factor mutual induction of two coils does not depends upon.	A. Number of turns of the coils B. Area of cross section of the coils C. Closeness of the coils D. Shape of the coils
1471	in the region where the field lines are parallel and equally spaced, the field is.	A. Zero B. Unirorm C. Non uniform D. Negative
1472	When a projectile reaches the highest point the vertical component of velocity becoems.	A. Small B. Vi cos thetha C. Zero D. Maximum
1473	The resistance of 10 micro F capacitance, when connected to A D.C. circuit is.	A. Zero B. Unity C. -1 D. Infinity
1474	Force acting on a test charge between the plates of a parallel plate capacitor is F. If one of the plates is removed teh force on the same test charge will be.	A. Zero B. F/2 C. F D. 2 F
1475	What information is given by the tangent to a field that point of electric field.	A. Magnitude B. Direction C. Proper unit D. Dimensions
		A. Force

1476	When net torque acting on a system is zero which of the following will be constant.	B. Angular momentum C. Linear momentum D. Linear impulse
1477	A component of the spectrometer which consists of a fixed metallic tube with a coned lens at one end and an adjustable slit is called.	A. Telescope B. Collimator C. Turntable D. Grating
1478	In an Isolated system , total energy of the vibrating's mass and spring is	A. Low B. High C. Constant D. Variable
1479	Gases have	A. Fixed shape B. Fixed volume C. Fixed shape and volume D. No fixed shape and volume
1480	Inserting a di electric between the plates of a charged parallel plate capacitor.	A. Decrease the capacitance B. Leaves teh capacitance the same C. Encourages breakdown between the plates D. Reduces the electric intensity between the plates
1481	The average amount of energy transported by a wave per unit area per unit time is termed as	A. Wave speed B. Wave intensity C. Wavelength D. Wave amplitude
1482	Simple harmonic motion may be assumed as a projectio of uniform circular motion along a	A. Diagonal B. hypotenuse C. Diameter D. Radius
1483	Induced fission result from the absorption of	A. electron B. Proton C. Nucleon D. Neutron
1484	The wave phenomenon that classifies light as a transverse wave is.	A. Polarization B. Diffraction C. Interference D. Refraction
1485	When a ray of light travelling in a denser medium enters into a rarer medium.	A. It remains undeviated B. It is reflected back C. It bends towards the normal D. It bends away from the normal
1486	While passing through the atmosphere total energy is reduced due to.	A. scattering B. Absorption C. Reflection D. All of these
1487	The ratio between the energy dissipated in some process and the heat that appears as a result is the	A. Specific heat B. Mechanical equivalent of heat C. Kilocalories D. Triple point
1488	Which of the following is used for the failure of a lens to form a sharp and distinct image.	A. Distortion B. Astrigmation C. Chromatic aberration D. spherical aberration
1489	A bodybuilders uses a chest expander with five springs it takes a force of 20 N to Pallone spring out by 15 cm how much force will be needed to extend the expander by 15 cm.	A. 50 N B. 75 N C. 150 N D. 1000 N
1490	Slip Rings are used in	A. D.C. dynamo B. A.C. dynamo C. Transformers D. Battries
1491	The quality of sound	A. Decreases with pitch B. Varies directly as its pitch C. Varies inversely as its pitch D. Depends upon the overtones present there
1492	The wave nature of light was proposed by	A. Thomas Young B. Fresnel C. Maxwell D. Huygen
		A. Leptons

1493	Which six particles and their antiparticles interact by the weak interaction.	B. Hadrons C. Muons D. pi mesons
1494	Which of the following describes that the time interval between two events may be different in different of references	A. Simullaneously B. Time dilation C. Length contraction D. Mass variation
1495	A spectroscope sorts out	A. Atoms B. Molecules C. Elements D. Isotopes
1496	Compton scattering experiment seemed to indicate that radiation had	A. Wave nature B. Particle nature C. Wave particle nature D. X-rays nature
1497	The practical efficiency of a heat engine is	A. 25% to 30.5 % B. 35% to 45% C. 30% to 45% D. 15% to 25%
1498	the consumption of energy by a 60 watt bulb in 2 s is	A. 0.02 J B. 30 J C. 120 J D. 60 J
1499	A body in equilibrium may not have	A. Velocity B. Momentum C. Acceleration D. K.E
1500	Which of the following is used for the failure of a lens to form a sharp and distinct image	A. Distortion B. Astigmation C. Chromatic aberration D. Spherical aberration
1501	For total internal reflection the light rays enter	A. From rarer to denser medium B. From, denser to rarer medium C. Medium of same refractive index D. At an angle 90 ^o
1502	The X-rays coming from a X-rays tube	A. Is monochromatic B. Has all wavelengths smaller than a certain maximum wavelength C. Has all wavelengths greater than a certain maximum wavelength D. has all wavelengths minimum than a certain maximum wavelength
1503	The ablate of rays of different colours to converge a single point sifter refraction though a convex lens is called.	A. Come B. Distortion C. Spherical aberration D. Chromatic aberration
1504	A simple astronomical telescope consists of two	A. Concave lenses B. Convex mirrors C. Convex lenses D. Plano convex lenses
1505	Positron are produced during.	A. Annihilation B. ionization C. Pair production D. x rays production
1506	The terminals of a battery are joined by a length of resistance wire Which change on its own will increase the current though the battery.	A. Connecting the wire with plastic insulation B. Covering the wire with plastic insulation C. Using a shorter wire of the same material and the same thickness D. Using a thinner wire of the same material and the same thickness
1507	Which quantity decay exponentially when a capacitors is discharged.	A. Charge only B. Charge and voltage only C. Charge and current only D. Charge voltage and current
1508	X-rays are not used in RADARs because	A. They are not reflected by the target B. they are not completely absorbed by air C. They damage the target D. They are reflected by the target

1509	The first book of physics was written by	A. Maxwell B. Newton C. Aristotle D. Faraday
1510	a 2,000 kg heavy truck travelling at 36 km h-1 strikes a tree and comes to a stope in 0.1 s The average force on the truck during the crash is.	A. 2 x 10² N B. 2 X 10³N C. 2 X 10⁴ N D. 2 X 10³ N
1511	When a pentavalent material like arsenic is added to a tetravalent material such as germanium, we get a.	A. n-type material B. p -type material C. diode D. super conductor
1512	The best instrument used for the measurement of emf of a cell a	A. A voltimeter B. An ammeter C. A potentiometer D. Wheatstone bridge
1513	In an isochoric process.	A. Volume changes B. Pressure changes C. Temperature changes D. Volume remains constant
1514	The patch followed by charge in an electric field is.	A. Circular B. Lnear C. Parabolic D. Zig zag
1515	Triple point of water in Kelvin scale is	A. 0 K B. 100 K C. 273 .15 K D. 373.15 K
1516	Ashes from a campfire deep in a cave show carbon -14 activity of only one eighth the activity of fresh wood. How long ago was that campfire made.	A. 13590 years B. 15190 years C. 17190 years D. 21190 years
1517	The resistance between(+) and (-) inputs of an amplifier is.	A. Zero B. Low C. High D. Infinity
1518	A pure choke consumes	A. No power B. Maximum power C. Minimum power D. Average power
1519	Fiber optics system can be used for.	A. Word processing B. Image processing and receiving C. Image transmitting D. All of the above
1520	If a ball was thrown out of a rocket in free space, then it would.	A. Accelerate away from the rocket B. Remain motionless after leaving the rocket C. Travel rectilinearly with constant speed D. Move always parallel to the rocket
1521	The electrons behave as waves, because they can .	A. Produce ions in gases B. Diffracted by a crystal C. Be deflected by electric fields D. Be deflected by magnetic fields
1522	A relationship between mechanical work and heat energy was firstly established dby.	A. Davy B. Count Rumford C. Joule D. Kelvin
1523	Coulomb found that the mutual force between tow electric charges varies.	A. Inversely as the distance B. Inversely as the square of the distance C. directly as the distance D. Directly as the distance squared
1524	A car is travelling with uniform acceleration the road has check posts every 100 m When the car passes one post , it has a speed of 10 m s-1 and when passes the next one its speed is 20 ms-1 What is the cars acceleration.	A. 0.67 m s-2 B. 1.5 m s2 C. 2.5 m s-2 D. 6.0 m s-2
1525	The process where by energy is dissipated from the oscillating system is called.	A. Resonance B. Damping C. Forced oscillation D. Free oscillation
		A. Decreases

1526	When wind blows in the same direction in which the sound travels, the sound velocity	B. Increases C. Remains unchanged D. Becomes zero
1527	Alpha particles are	A. Helium nuclei B. sodium nuclei C. loized nuclei D. Hydrogen nuclei
1528	Which of the following atom pair have the same structure.	A. N, C B. B, Li C. H2 , Ne D. Li , Na
1529	The most suitable material for moderator in a nuclear reactor is.	A. B B. Cd C. D2O D. Uranium
1530	In L-C parallel circuit the capacitor draws a	A. Lagging current B. Leading current C. Lagging voltage D. Leading voltage
1531	Which of the following causes the deflection of Alpha particles when they re passed through a thin foil.	A. Attraction of nucleus B. Collision with nuclei C. Interactions with electrons D. Electrostatic repulsion by the nucleus
1532	In the gas equation PV =nRT , V is the volume of.	A. 1 g of gas B. 1 L of gas C. 1 mol of gas D. 1 kg of gas
1533	Which is the thick circular structure in teh eye containing an aperture with variable diameter It controls the amount of light reaching the retina.	A. Retina B. Iris C. Pupil D. Cornea
1534	Who discovered neutron in 1932.	A. Chadwick B. Bohr C. Rutherford D. Fermi
1535	X-rays are similar in nature to.	A. Alpha particles B. Beta particles C. Gama rays D. Photons
1536	Tracer techniques make use of.	A. Neutron scattering B. Electron beams C. LASER D. Radioactive isotopes
1537	An active component of an electronic circuit consisting of a small block of semiconducting material to which at least three electrical contacts are made is known as.	A. Rectifier B. Amplifier C. Thermocouple D. Transistor
1538	A bulb of 100 W is connected to a 160 V supply What will be the power consumed.	A. 25 W B. 30 W C. 50 W D. 64 W
1539	Which of the following is electromagnetic wave.	A. X rays B. Micro waves C. Light D. All of these
1540	If a capacitor is charged by using a 1.5 V battery, how much charge will capacitor gain.	A. 0 V B. 0.5 V C. 1.5 V D. 3 V
1541	In a photocell, certain metals emit electrons for	A. Visible light B. X-rays C. Infrared light D. Ultraviolet light
1542	The mass of proton is equal to.	A. 1.673 x 10⁻²⁷ kg B. 1.673 x 10²⁷ kg C. 9.1 x 10-31 kg D. 9.1 x 10³¹ kg
1543	a body floats in liquid contained in a beaker The whole system falls freely under gravity The	A. Zero B. Equal to the weight of the body in air C. Equal to the weight of the liquid

1543	outthrust on the body due to liquids is	C. Equal to the weight of the liquid displaced D. Equal to the weight of the immersed portion of the body
1544	The buoyancy depends upon the	A. Depth to which the body is immersed B. Shape of the body C. Mass of the body D. Mass of the liquid displaced
1545	A wave source of frequency 1000 Hz emits waves of wavelength 0.1 m How long does is take for the waves to travel 2500 m.	A. 20 s B. 25 s C. 40 s D. 100 s
1546	Transformer make possible the	A. transmission of A.C. power B. conversion of AC and D.C C. Cyclotron D. Particle accelerator
1547	A force of 50 N acts on a body for 10 s the change in momentum will be.	A. 5 N s B. 200 Ns C. 500 Ns D. 800 N s
1548	If an elevator is moving vertically up with an acceleration 'a' the force exerted on the floor by a passing of mass 'm' is	A. Ma B. Mg C. M(g +a) D. M (g-a)
1549	The ratio of specific heat capacity to motor heat capacity of a body	A. Is a universals cantante B. Depends upon the mass of the body C. Depends upon the molecular weight of the body D. Is dimensionless
1550	Current in an electrolyte is carried by.	A. Electron only B. Anions only C. Citations only D. Mesons only
1551	Which of the following measures how quickly the thermometer liquid mainly because it	A. Is coloriess B. Is a bad conductor of heat C. Does not expand linearly D. Has a low boiling point
1552	Who proposed the thermodynamic scale of temperature.	A. Saadi carnot B. Lord Kelvin C. Sir james dewar D. Gabriei fahrenheit
1553	If you float in water with just your nose out the average density of your body must be	A. Same as that of water B. Greater than that of water C. Less than that of water D. Zero
1554	A light beam is said to be plane polarized when	A. its vibrations are restricted to only one plane B. Its vibrations are very strong in one plane C. Its vibrations take place in any plane D. Its vibrations are very weak in one plane
1555	The mass defect of Bohr's atomic model is	A. Exclusion of nuclear motion B. missing of classical and quantum theories C. Failed to explain the fine structure of spectral line D. All of the above
1556	Two electrons approach each other their relative velocity will be.	A. Zero B. c C. c/2 D. Infinity
1557	When a diamagnetic substance is inserted in a current carrying coil the magnetic field is	A. Decreased B. Increased C. unchanged D. Increased or decreased, depending upon the relative volume of the substance
1558	With increase in temperature the electrical conductivity of intrinsic conductors.	A. Increases B. Descreases C. Remain unaffected D. First increases then decreases

		D. First increases then decreases
1559	When the frequency of A.C in L - C- R circuit is incrased the impedance of L-C-R circuit.	A. Increase B. Decrease C. Remain unchanged D. First decrease and then increases
1560	The extension produced in a sample of material depends upon	A. Nature of the material B. Stretching force C. Cross range order D. All of the above
1561	Which of the following quantities associated with SHM does not vary periodically.	A. velocity B. Displacement C. Acceleration D. Total energy
1562	The angular momentum of a body about a fixed point is conserved if its velocity	A. Decreases B. Increases C. Remain the same D. Becomes zero
1563	The acceleration due to gravity	A. Has the same value everywhere in space B. Has the same value every where on the earth C. varix with altitude on the earth D. Is great her on the moon owing to its smaller diameter
1564	For the angular momentum of a system to remains constant, the external torque should be	A. small B. Large C. Neither small nor large D. zero
1565	Conductance is the reciprocal of.	A. Capacitance B. Inductance C. Resistance D. Admittance
1566	Bracket and plunk series of spectral lines lye in the	A. Visible region B. Ultraviolet region C. Far infrared region D. Infrared region
1567	Neil Bohr made his three postulates in.	A. 1897 B. 1905 C. 1913 D. 1921
1568	The interference between two sounds of slightly differed frequency is	A. shock wave B. Beats C. Sonic boom D. Doppler's effect
1569	Work can be stored in an inductor as.	A. Elastic P.E. B. Electrical P;E. C. Gravitational energy D. K.E.
1570	A diatomic gas contains only	A. Translational K.E. B. Rotational K.E. C. Vibrational K.E. D. All of these
1571	In an elastic collision	A. K.E. is conserved B. Both K.E. and momentum are conserved C. K.E. is not conserved D. Only momentum is conserved
1572	To obtain is parallel beam from the headlight of a car it must be fitted with.	A. A convex mirror B. A concave mirror C. A convex lens D. A concave lens
1573	The band of colours is called.	A. Spectrum B. Prism C. Medley D. LASER
1574	Who introduced the concept that an atom possesses quantized energy levels.	A. Fermi B. Newton C. Bohr D. Einstein
1575	Photocells are used for	A. Security systems B. Counting systems C. Automatic door system D. All of the above

		D. All of the above
1576	For which position, will the maximum blood pressure in the body have the smallest value.	A. Standing up right B. Sitting relaed C. Lying horizontally D. Standing on one's head
1577	What can be used as the unit of envery.	A. N m-1 B. V A C. W.s D. V C-1
1578	The near point of a person is 50 cm and his far point is 200 cm The power of the lenses which his spectacles should have to see clearly distant objects will be.	A. -0.5 D B. -10 d C. -1.5 D D. -2.0 D
1579	In vacuum all electromagnetic waves have the same.	A. Frequency B. Amplitude C. Speed D. Wavelength
1580	Which type of amplifier causes minimum drain of power supply.	A. Class -A B. Class -B C. Class-C D. Class -AB
1581	Michelson used the equation to determine the speed of light.	A. c = 4 fd B. c = 8fd C. c =12 fd D. c = 18 fd
1582	Which part of hole located in the centre of the eye that allows light to enter the retina.	A. Iris B. Pupil C. Cornea D. Fovea
1583	For which process is the relation Delta Q = Delta V true.	A. Isothermal B. Adiabatic C. isobaric D. Isochoric
1584	Frequency of second pendulum is.	A. 0.5 Hz B. 1.0 Hz C. 1.5 Hz D. 2.0 Hz
1585	The wavelength of X-rays is of the ofder of.	A. 10⁻¹⁴ m B. 10⁻¹⁰ m C. 10⁻⁹ m D. 10⁻⁶ m
1586	Which of the following has greatest binding energy per nucleon.	A. Normal hydrogen B. Deuterium C. Tritium D. Helium-4
1587	What is the change in path when sound wave is reflected from a rigid support.	A. Lamda /2 B. Lamda C. 2 lamda D. Zero
1588	An increase in frequency above threshold frequency results in.	A. Increase in photo electric current B. Increase in K.E. of electrons C. Decrease in photoelectric current D. Decreases in K.E. of electrons
1589	Why transistor is preferred to triode valve for use as an amplifier.	A. Because it can handle large power B. Because it has higher input impedance C. Because it has higher voltage gain D. Because it has lower voltage gain
1590	Woolen clothing a effective in keeping us warm because.	A. An trapped int he wool acts as an insulator B. Heat loss by convection and radiation is prevented C. Wool is bad traciator and good absorber of heat D. Wool can retain high temperatures
1591	To get large magnifying power of an astronomical telescope. we should have focal length of eye lens.	A. Small B. Large C. Of any value D. Infinity
1592	Thermocouple is combination of.	A. Thermocouples B. Capacitors in parallel C. Resistors in series

		D. Ammeter and voltmeter
1593	Which mirror be used for obtaining a parallel beam of light from a small lamp.	A. Plane mirror B. Convex mirror C. Concave mirror D. All of these
1594	When all the systems taking part in a process are included, the entropy.	A. Decreases B. Either remains constant of increases C. Either remains constant or decreases D. Remains constnat
1595	Who devised a technique for the measurement of change on an electron in 1909	A. Milikan B. Joule C. Ampere D. Ohm
1596	If a body a moving with constant acceleration the velocity time graph will be a	A. zig zag B. Straight line C. Constant value D. zero value
1597	Who pointed out that both wave and particle aspects are required for the complete description of both radiation and matter.	A. Davison and Germer B. J.J.Thomson C. Neil Bohr D. Compton
1598	Who was the most outstanding theoretical physicist.	A. Daniel B. Maxwell C. Ampere D. Young
1599	In a spectrometer experiment monochromatic light is incident normally on a diffraction gratin having 4.5×10^5 lines per metre The second order line is seen at an angle of 30^o to The normal What is the wavelength of the light.	A. 430 nm B. 556 nm C. 589 nm D. 625 nm
1600	When impurities are added to metals they	A. Will decrease the elasticity B. Will increases the elasticity C. Will not change the elasticity D. Will or will not change the elasticity
1601	If the gas pressure is increased then its mean free path becomes.	A. More B. Zero C. Infinite D. Less
1602	Which eye defect can be rectified by using diverging lens.	A. Near sightedness B. Far sightedness C. presbyopal D. Astigmatism
1603	Pitch of the sound determines	A. Its shrillness B. Loudness of sund C. Intensity level D. Quality of sound
1604	If we place oure hand below a lighted lamp we feel warmer due to.	A. Conduction B. Convection C. Radiation D. None of these
1605	What is the minimum number of thermodynamic parameters required to specify the state of gas system.	A. 1 B. 2 C. 3 D. Infinite
1606	The half life of a radioactive element depends upon.	A. Temperature B. pressure C. nature of element D. quantity of the element
1607	If the K.E. of a body becomes 4 times of its initial value, the new momentum will be	A. half B. Same C. Double D. 4 times
1608	What is zoom lens	A. It is a lens having fixed focal length B. It is a lens having variable focal length C. It is a lens used in radii to telescope D. All of the above
1609	Significant motion for the molecules of a monoatomic gas is.	A. Rotatory B. Vibratory C. Translatory

		D. Random
1610	An astronaut in an earth satellite will observe the sky as	A. Light blue B. Deep blue C. White D. Black
1611	The proportion of crystalline to amorphous regions in a polymer depends on its	A. Chemical composition B. Molecular arrangement C. Physical state D. Chemical composition and molecular arrangement
1612	According to Coulomb's law what happens to the attraction of two oppositely charged objects as their distance of separation increases.	A. Increase B. Decrease C. Remain unchanged D. Cannot be determined
1613	The mechanical equivalent of heat is.	A. Physical quantity B. Constant C. Conversion factor D. Zero
1614	Which one of the following is diamagnetic	A. Liquid oxygen B. Air C. Water D. Copper sulphate
1615	Transistor are made from	A. Plastics B. Metals C. Insulators D. Doped semiconductors
1616	Hydrogen bomb is based on	A. Controlled chain reaction B. Uncontrolled chain reaction C. Nuclear fusion D. Nuclear fission
1617	A semiconductor diode conducts only when it is	A. Not biased B. Zero biased C. Reverse biased D. Forward and biased
1618	The specific heat capacity of the body depends upon.	A. the heat given to it B. Mass of the body C. Temperature raised D. Material of the body
1619	Stationary waves are produced when two identical waves are moving on the string.	A. Along the same direction B. Along the opposite direction C. Along the perpendicular direction D. Of length 1 m
1620	Which of the following is believed to be carrier o nuclear forces.	A. Lepton B. Meson C. Bason D. Baryon
1621	A uniform vertical wire is stretched by hanging a mass from its lower end Which of the following does ot effect the strain in the wire.	A. The stress B. The upstretched length C. The load applied D. the Young's modulus of the metal
1622	What is the internal energy of a mono atomic ideal gas.	A. Potential only B. Parity kinetic and parity potential C. Kinetic only D. Neither kinetic nor potential
1623	The particles less in mass than protons are	A. Measons B. Bosons C. Baryons D. Nucleons
1624	Why is a capacitor resistor combination used in oscillators in grid circuit.	A. To generate oscillation B. To bias the grid automatically C. To amplify oscillations D. To sustain the oscillations.
1625	If slope of velocity time graph gradually decreases, then a body is said to have	A. Negative acceleration B. Positive acceleration C. Uniform velocity D. Variable velocity
1626	When we look at the sky during daytime the light that we see is sunlight that has been absorbed and then re radiated in different directions, This process is called.	A. Scattering B. Diffusion C. Mirage D. Rainbow
		A. Torque

1627	Mass -energy relation means that the product of mass times the square of the speed of light must be equal to.	B. Momentum C. Energy D. Impulse
1628	How much large is the proton mass than the electron mass.	A. 1536 B. 1636 C. 1736 D. 1836
1629	Which of the following is not the SI unit of magnetic flux density.	A. Wb m2 B. N A-1 m-1 C. Tesla D. N mA-1
1630	Velocity of sound in air at a given temperature.	A. Increases with increase in pressure B. Decrease with increases in pressure C. Is independent of pressure D. Becomes quadruples
1631	Fringe spacing in double slit experiment can be increased by decreasing.	A. Wavelength of light B. Width of slits C. Slite separation D. Distance between the slits and screen
1632	The dimensions of viscosity are	A. [MLT-1] B. [MT-2] C. [ML-1T-1] D. [ML2T-1]
1633	The addition of two or more waves is termed as	A. Interferences B. Period C. Echo D. Polarization
1634	In an ideal case, when no K.E. is lost the collision is.	A. Perfectly elastic B. Perfectly inelastic C. May or may not be elastic D. May or may not be inelastic
1635	NOR gate is a combination of.	A. OR gate and NOT gate B. OR gate and AND gate C. OR gate and OR gate D. NOT gate and AND gate
1636	The reciprocal of decay constant lamda of a radioactive substances is equal to.	A. total life B. Half life C. Mean life D. Curie
1637	What will be excitation energy in the third orbit of hydrogen atom.	A. 0.66 eV B. 0.85 eV C. 1.5 eV D. 5.4 eV
1638	What is the overall gain, if three amplifiers each with a gain of 30 are cacaded.	A. 30 B. 90 C. 270 D. 27,000
1639	The angular speed of an electron in the nth orbit of Bohr's hydrogen atom is.	A. Directly proportional to n B. Directly proportional to n2 C. Inversely proportional to n D. Inversely proportional to n2
1640	The tunnel effect makes possible	A. Alpha decay B. Gama rays C. Positive Beta decay D. negative Beta dacay
1641	X-ray are	A. Streams of negatively charted particles. B. Electromagnetic wave C. Streams of positively charged particles D. Visible light
1642	Which of the following parameters does not characterize the thermodynamic state of matter.	A. Temperature B. Pressure C. Volume D. work
1643	When a wire moves perpendicularly to a magnetic field, the induced emf does ot depends upon	A. The velocity of the wire B. The resistance of the wire C. The flux density of the magnetic D. The orientation of the wire field

1644	Any frequency higher than the fundamental frequency of a sound is known as.	A. Overtone B. Beat C. Acoustics D. Shockwaves
1645	Acceleration due to gravity is not affected by which one of the following	A. Latitude B. Attitude C. Longitude D. Depth
1646	By decreasing angle between two vectors their cross product.	A. Increases B. Decreases C. Remains the same D. Vanishes
1647	Light wave can be polarized because they	A. Are transverse in nature B. Can be reflected C. Have short wavelength D. Have high frequncies
1648	The angle of incidence that causes the refracted ray in the rarer medium to bend though 90^{o} is called.	A. Critical angle B. solid angle C. Plane angle D. Acute angle
1649	Since light rays are always diverged by concave lenses such lenses	A. Cannot form images B. Form only black and white images C. From only invented image D. Form only erect images
1650	A rectangular block has length 6 cm, width 5 cm and height 10 cm Its mass is 150 g The density of the block is	A. 0.2 g cm-3 B. 0.5 g cm-3 C. 2 g cm-3 D. 5 g cm-3
1651	When a force of 16 N acts on a mass of 4 kg for a time of 4 s. What is the rate of change of momentum.	A. 1 kg m s-2 B. 4 kg m s-2 C. 8 kg m s-2 D. 16 kg m s-2
1652	The energy that must be added to separate the nucleus is called.	A. Critical energy B. Binding energy C. Gravitational energy D. Electrostatic energy
1653	One Tesla is equal to.	A. 1 N A-1 B. 1 N m-1 C. 1 N A -1 m D. 1 N A -1 m-1
1654	Which of the following is formed by decay of a free neurton.	A. A number of electrons B. Two protons C. A proton and an electron D. An alpha particle
1655	The convincing evidence of the wave nature of electrons was provide by.	A. Stefan B. Rayleigh C. Davision and Germer D. Balmer
1656	The gama rays have	A. Thin tracks B. Thick tracks C. No definite tracks D. Continuous tracks
1657	A physical quantity not directly involved in rotating motion is.	A. Moment of inertia B. Mass C. Angular velocity D. Torque
1658	Net change in entropy of a system in a Carnot's cycle in	A. Positive B. Negative C. Zero D. Infinite
1659	A cork moes at 5 m s-1 on the crest of a wave The distance between the crests is 10 m. The frequency of the wave motion is.	A. 0.5 Hz B. 1.0 Hz C. 2.0 Hz D. 5.0 Hz
1660	In case of stationary waves every particle of the medium has fixed	A. Velocity B. Displacement C. Amplitude D. Phase
1661	The fundamental quantities which form the base of the SI are.	A. mass, energy and time B. mass, force and time C. mass, length and time D. mass, length and time

		D. mass , length and time
1662	Who invented the first closed tube thermometer in 1713	A. Gabried Fahrenheit B. Galileo C. anders Celsius D. Lord Kelvin
1663	A spring obeying Hooke's law has an upstretched length 50 mm and a spring constant of 400 N m-1 What is the tension in the spriing when its overall length is 70 mm.	A. 8 N B. 28 N C. 160 N D. 400 N
1664	The chain reaction is controlled by a series of rods usually made of.	A. uranium B. Cadimium C. Boron D. Steel
1665	A young man wearing glasses does not require bifocals because he	A. Is farsighted B. Has the ability to accommodate C. Is short signed D. Does not suffer from coma
1666	Reciprocal of the focal length is called.	A. Radios of curvature of the lens B. Power of the lens C. Aperture of the lens D. Resolving power
1667	A bi prism consists of.	A. Two parallel glass plates B. Two acute angled prisms C. Two obtuse angled prisms D. Two right angled prisms
1668	The constant lamda is called the.	A. Decay constant B. Gas constant C. Planck's constant D. Dose constant
1669	The most abundant isotope of neon is.	A. Neon -20 B. Neon -21 C. Neon -22 D. Both a and c
1670	Which thermometer is called sprint thermometer	A. Alcohol thermometer B. Mercury in glass thermometer C. Gas thermometer D. Radiation thermometer
1671	The phenomenon in which a charging current in one coil induces an emf in another coil is called.	A. Induced current B. Induced emf C. Self induction D. Mutual induction
1672	Light of passing through a polaroid is	A. Plane polarized B. Unpolarized C. Circularly polarized D. Elliptically polarized
1673	Relative permeability is	A. The ratio of flux density in a material to that for a vacuum B. Very large for paramagnetic materials C. small for paramagnetic materials D. None of these
1674	In the Geiger Marsden experiment a narrow beam of alpha particles was fired at a thin piece of Gold foil in a vacuum Some of the particles were scattered though large angles The result of the experiment provided evidence for the existence of.	A. A very small charged nucleus B. electrons orbiting the nucleus C. Neutrons in the nucleus D. Nuclear reaction
1675	In Compton's effect the change in wavelength of a scattered photon is called.	A. Angle of emergence B. Angle of refraction C. Angle of deviation D. Compton shift
1676	A heat engine with 100% efficiency would have to.	A. Do no work B. Be at uniform temperature C. Use no heat D. Discharge of 0 ^oC
1677	Which field is produced by electric charge on a body at rest.	A. Electric field only B. Magnetic field only C. Neither electric nor magnetic field D. Both electric and magnetic fields
1678	Balimer series lies in the	A. Visible region B. Invisible region C. Infrared region D. Far infrared region

1679	Lenz's was a physicist of.	A. America B. Russia C. Japan D. China
1680	The equation of parabola is.	A. y= bx - ax2 B. x = by - ay2 C. y = ax + bx2 D. x = a -by2
1681	The output of two input OR gate is zero only when its.	A. Either input is one B. Either input is zero C. Both inputs are zero D. Both inputs are one
1682	Polarization is characteristic of.	A. Light wave B. sound waves C. Waver waves D. x-rays
1683	A simple pendulum suspended from the celling of a lift has a time period T when the lift falls freely the time period of the pendulum will become	A. Zero B. T/9.8 C. 9.8 T D. Infinity
1684	The best shield against Gama rays would be of	A. Heavy water B. Aluminium C. Iron D. Lead
1685	If the current in a wire which is placed perpendicular to a magnetic fields increases the force on the wire.	A. Increases B. Decreases C. Remain the same D. Will be zero
1686	Which property of waves is independent of the others.	A. Amplitude B. Velocity C. Frequency D. Wavelength
1687	Which experiment is a demonstration that matter and energy can display properties of both waves and particles.	A. young's double slit experiment B. Division germier experiment C. Heisenberg's uncertainty experiment D. Stern Gerlach experiment
1688	Push pull amplifiers employ	A. One transistor B. Two transistors C. Three transistors D. Four transistors
1689	The unit Planck's constant is equivalent to that of.	A. Energy B. Force C. Velocity D. Angular momentum
1690	Which of the following phenomenon is explained by the tunnel efffect.	A. Alpha decay B. Beta decay C. Gama decay D. Radioactivity
1691	The ratio of the velocity of sound in hydrogen to the velocity of sound in oxygen is	A. 4:1 B. 16:1 C. 2:1 D. 8:1
1692	Electromagnetic waves transmit.	A. Energy only B. Momentum only C. Energy and momentum D. Light
1693	Beats are the results of.	A. Diffraction of sound waves B. Interference C. Polarization D. Timber
1694	Which of the following quantities has a unit that can be expressed in terms of just two different SI Units.	A. Area B. Charge C. Force D. Current
1695	Capacitance is directly proportional to	A. Distance between the plates B. Di electric strength C. Area of the plates D. Charge multiplied by the applied voltage
1696	The design of an airfoil uses	A. Archimedes principle B. Bernouli's principle

1696	The design of an airfoil uses	C. Pascal law D. Hooke's law
1697	Who provided theoretical explanation of a blackbody spectrum.	A. Einstein B. Planck C. Wien D. stefan
1698	Which are different types of emission spectrum	A. Continues spectrum B. Line spectrum C. Band spectrum D. all of the above
1699	The ratio of intensities of two sound waves is 4 : 9 what will be the ratio of their amplitudes.	A. 9:4 B. 2:3 C. 3:2 D. 4:9
1700	On which of the following the object size as perceived by eye depends upon.	A. Actual size of the object B. Aperture of the pupil C. Object distance from the eye D. Size of the image formed on the retina
1701	Temperature of a system remains constant in	A. Adiabatic process B. Isobaric process C. Isothermal process D. Isochoric process
1702	A wire surrounded by a concentric cylindrical metal shield constitutes a.	A. Spherical capacitor B. Parallel plate capacitor C. Cylindrical capacitor D. Cylindrical condenser
1703	Which of the following properties is not exhibited by X-rays.	A. Interference B. Diffraction C. Polarization D. Deflection of electric field
1704	Who studied freely failing bodies using modern scientific method.	A. Galileo B. Issac newton C. Abert Einstein D. Alkundi
1705	The maximum K.E of photo electrons depends upon	A. Energy of incident radation B. Frequency of incident radiation C. Wavelength of incident radiation D. Mass of incident radiation
1706	The SI unit of magnetic flux is	A. gauss B. Maxwell C. Oersted D. Water
1707	Who developed the first atomic reactor.	A. Bohr B. Fermi C. Rutherford D. Taylor
1708	Light from the sun reaches the earth in	A. Spherical wave fronts B. Cylindrical wave fronts C. Plane wave fronts D. Packets
1709	The phase angle between the voltage and current is A.C. circuit though a resistor is.	A. 0 ^o B. 45 ^o C. 90 ^o D. 180 ^o
1710	The process of pair production will take place if the energy of photon is greater than.	A. 0.21 MeV B. 0.51 MeV C. 1.51 MeV D. 1.21 MeV
1711	The speed of a sound wave is independent of	A. Nature of medium B. Pressure C. Temperature D. Mass and energy
1712	Two wires P and Q each of same length and the same material are connected in parallel to a battery The diameter of P is half that of Q What fraction of the total current passes through P.	A. 0.02 B. 0.25 C. 0.33 D. 0.50
1713	If the earth stopped rotating the weight of the object at the equator would.	A. Be greater B. Be same as before C. Be less D. Very with altitude

1714	Temperature of a gas is related to.	A. Total K.E. of the gas molecules B. The K.E. of the centre of mass of the gas C. The P.E. of the centre of mass of the gas D. Total K.E. of the molecules w.r.t the centre of mass of gas
1715	One gray is equal to.	A. 1 J-1 kg -1 B. 1 J -1 kg -2 C. 1 J 1 -g-1 D. 1 j kg -2
1716	A body moves with velocity of 2 x 10^6 m s-1 its relativistic mass becomes	A. Zero B. Unity C. Double of its rest mass D. Infinity
1717	Wave mechanics was introduced by	A. G.P. Thomson B. De-Broglie C. Heisenberg D. Max Planck
1718	Which given quantity remains the same in isotones.	A. Mass number B. Atomic number C. Number of neutrons D. Number of protons
1719	Which of the following remains unaffected in a magnetic field.	A. a particles B. b partciles C. gama particles D. Electrons
1720	In a purely inductive circuit, the current	A. Lags behind the emf by 90^o B. Leads the emf by 90 ^o C. Is in phase with emf D. May lag or lead the emf
1721	Which type of oscillations produce resoncance.	A. Free B. Forced C. Damped D. All of these
1722	Which quantity must be the same for two bodies if they are to be in thermal equilibrium.	A. Internal energy B. P.E C. Temperature D. Mass
1723	When Be is bombarded by alpha particles, then we obtain	A. electron B. Proton C. Positron D. Neutron
1724	The perceived fundamental frequency of a sound is called.	A. Pitch B. Timber C. Loudness D. Wavelength
1725	The speed of bodies exceeding the speed of sound is called.	A. Superesonic B. Ultrasonic C. Infrasonic D. Super fast
1726	A logic circuit with one input and one output that inverts the input signal at the output is.	A. AND gate B. NOT gate C. OR gate D. NOR gate
1727	When light of particular frequency is allowed to fall upon a metal surface electrons are emitted from a these emitted electrons are called.	A. Photons B. Holes C. Quants D. Photo electrons
1728	They hysteresis losses are eliminated in power transformer by using	A. Low resistivity power winding B. Low reflectance steel cores C. Laminated steel cores D. soft iron cores
1729	The relationship between mass number atomic number and neutron number is.	A. A = Z + N B. A = Z - N C. Z = A + N D. N = Z - A
1730	The near point of a person is 50 cm and his far point is 200 cm The power of the lenses which his spectacles should have for reading will be	A. +D B. +2D C. +4D D. -2D

		D. -2D
1731	Two vectors of magnitudes 5 N and 7 N respectively are acting on a body if the angle between them is a right angle, their resultant vector will be.	A. 2 N B. 4 N C. 6 N D. 8 N
1732	Which of the following is an electrostatic generator.	A. Winshurst machines B. Van de Graff generator C. Electrophorus D. All of the above
1733	Michelson's interferometer can b e sued to find	A. Velocity of light B. Velocity of sound C. Wavelength of light D. Wavelength of sound
1734	The total number nucleons in a nucleus are called.	A. Mass number B. Atomic number C. Neutron number D. Isotopes
1735	Which one of the following is a convenient energy unit to express the energy of sub atomic particles.	A. Joule B. electron volt C. Watt D. Curie
1736	In rotational motion the quantity which plays the same role as the inertial mass in rectilinear motion.	A. Angular momentum B. Linear momentum C. Moment of inertia D. Torque
1737	The characteristic of an image formed by a plane mirror is.	A. It is of the same size as the object B. It is laterally inverted C. It is upright D. All of the above
1738	The strength per unit volume of a solid is called.	A. shear stress B. Shear strain C. Bulk strength D. Bulk modulus
1739	A device which converts electrical energy into mechanical energy is called.	A. A.C generator B. D.C. generator C. Motor D. Commutator
1740	If a vehicle is to gain momentum it must	A. Lose weight B. Move slowly C. Lose inertia D. Accelerate
1741	The SI unit of gravitational constant G is.	A. kg m-1 s-1 B. kg m2 s-2 C. kg m3 s-2 D. kg m2 s-1
1742	In the fusion process, there are	A. Hydrogen isotopes B. Helium Isotopes C. Carbon isotopes D. Oxygen isotopes
1743	The ratio of average induced emf to the rate of changing of current in the coil is called.	A. Self induction B. Mutual induction C. Self inductance D. Mutual inductance
1744	The angular frequency time period and frequency of a simple pendulum depends only on the.	A. Mass and amplitude B. Mass and gravitational acceleration C. Amplitude and frequency D. Length and gravitational acceleration.
1745	A body is equilibrium may not have	A. Momentum B. Velocity C. acceleration D. K.E.
1746	A ball mass 0.25 kg is thrown to a height of 20 m The change in G.P.E is	A. 49 J B. 50 J C. -75 J D. 500 J
1747	Which one of the following instruments has the maximum resistance.	A. Ammeter B. Voltmeter C. Micro ammeter D. Milli ammeter
		A. Axicon

1748	What is the type of corrective lens used to correct or enhance the vision is only one eye.	B. Monocle C. Zoom lens D. Camera lens
1749	The force experienced by a unit positive charge at that point placed in an magnetic field is known as.	A. Electric field intensity B. Electric flux C. Electric potential D. Electric dipole
1750	Which of the following characteristics of a wave is independent of the others.	A. speed B. Frequency C. Amplitude D. Wavelength
1751	Inductance divided by resistance and the product of capacitance and resistance both have units of.	A. Charge B. Time C. Force D. Current
1752	Who first discovered a similarity in nature of x rays and light rays.	A. Roentgen B. Bragg C. Man Von Lave D. Moseley
1753	Who was awarded Nobel Prize for fist artificial atomic transmutation.	A. Yukawa B. Rutherford C. Chadwick D. Becquerel
1754	In annitilation of matter, positron and electron pair disappears into two	A. Alpha particles B. Beta particles C. Game particles D. X-rays
1755	The magnifying power of a convex lens of focal length 5 cm is	A. 3 B. 5 C. 6 D. 20
1756	The eight most common element in the universe by mass is	A. Ge B. C C. Si D. As
1757	A choke coil is a coil with	A. Low inductance and low resistance B. Low inductance and high resistance C. High inductance and low resistance D. Low inductance and negligible resistance
1758	Who was the first to suggest the existence of a positively charged nucleus in an atom.	A. J.J Thomson B. R.A Millikan C. E.Rutherford D. Neil Bohr
1759	Special theory of relativity deals with the events in the frames of reference which move with constant.	A. Time interval B. Acceleration C. Momentum D. space interval
1760	An Electric kettle should always be fitted with an earth connection as a protective device What is being protected by the earth connection.	A. The cable connecting the kettle B. The fuse in the circuit C. The heating element of the kettle D. The person using the kettle
1761	Who explained the Fraunhofer lines in the spectrum of solar radiations.	A. Wein B. Stefan C. Fraunhofer D. Kirchoff
1762	Out of the following pairs, which one does not have te same dimensions.	A. Force and weight B. Pressure and stress C. Energy and work D. Momentum and torque
1763	In case of a convex lens, image formed at 2 F is	A. Virtual, erect and larger than the object B. Real, inverted and large than the object C. Real, inverted and same size as the object D. Real, inverted and smaller than the object
1764	The line passing symmetrically though the optical center of the lens is.	A. Focal plane B. Principal focus C. Principal axis D. Focal length

1765	The permittivity of a medium.	A. Is a measure of the density B. Is equal to unity for air C. Depends on the charge derisory of the medium D. Determines the magnitude of an electric field that can be established by the medium
1766	The ability's of convex lens to produce convergence in a parallel beam is called its.	A. Magnification B. Focal length C. Power D. Strength
1767	A water wave is an example of	A. Electromagnetic wave B. Longitudinal wave C. Transverse wave D. Reverberation
1768	An important property of an ideal power supply is.	A. Infinite internal resistance B. Zero internal resistance C. Large output resistance D. Small output resistance
1769	If the number of coulombs per second through a wire of 10 Ohm resistance across a 120 V line is 12, the current is	A. 5 A B. 10 A C. 12 A D. 15 A
1770	The electric supply line in houses works at 220 V what will be the amplitude of emf.	A. 120 V B. 331 V C. 220 V D. 440 V
1771	For which material magnetic susceptibility is negative.	A. Paramagnetic B. Diamagnetic C. Ferromagnetic D. All of these
1772	The SI unit of solid angle is	A. Degree B. Radian C. Steradian D. Candala
1773	when a bowl of water is take into the bottom of a well the work done is.	A. Positive B. Negative C. Zero D. Maximum
1774	What do we study by crystallography.	A. The analysis of X ray spectra of elements and study of crystal structure. B. Visible spectra of sources and crystal study C. Ultraviolet spectra of sources and crystal study D. Characteristics of X-rays
1775	If a planet of mass double than that of the earth and radius three times greater than the earth a 10 kg mass on its surface will weight.	A. 2.2 N B. 4.4 N C. 6.7 N D. 13.2 N
1776	The minimum amount of energy in an individual electron has to gain to escape from a particular surface is called.	A. Threshold frequency B. work function C. Wave number D. Kinetic energy
1777	For which of the following objects is the centre of mass equidistant from every point on its surface	A. An unsharpened pencil B. A gramophone record C. An egg D. A table tennis ball
1778	What for is semiconductor diode used.	A. To convert D.C. to A.C. B. To convert A.C. to D.C. C. To increase voltage D. To decrease voltage
1779	X-rays are absorbed maximum by	A. Paper B. Copper C. Steel D. Lead
1780	The SI unit of torque is	A. kg ms-2 B. kg m2s-2 C. kg ms-1 D. kg m2 s-3

1781	In half wave rectifier the rms value of A.C. component of the wave is.	A. More than A.C. Value B. Less than D.C. value C. Same as that of D.C. D. Not detectable
1782	The pressure change in a confined incompressible fluid is transmitted equally in all directions throughout the fluid and to the walls of the container This is.	A. Archimedes principle B. Kirchhoff's law C. Pascal's law D. Ampere's law
1783	Sound wave do not travel in vacuum because.	A. they are transverse waves B. They are stationary waves C. They require material medium for propagation D. They do not have enough energy
1784	The mass of an alpha particle is.	A. 2 u B. 4 u C. 6 u D. 8 u
1785	A person suffering from short sighted ness uses	A. Concave lens B. Convex mirror C. Convex lens D. Concave mirror
1786	What is the focal length of a normal eye lens.	A. 1 mm B. 2 cm C. 25 cm D. 1 m
1787	If Young's experiment is performed in water. which of the following change will occur.	A. Fringe width will increases B. Fringe width will decreases C. Fringe width will remain unchanged D. No fringe will be seen
1788	Express the quantity 225 x 10^{-6} s using prefixes.	A. 0.225 micro second B. 2.25 micro second C. 225 micro second D. 2,25 neno second
1789	The change in entropy for any reversible cycle is identically	A. Infinite B. Positive C. Negative D. Zero
1790	The critical mass of a fissionable material is.	A. 1 kg B. 10 kg C. 100 kg D. 1.,000 kg
1791	An induced emf in a coil is independent of	A. Time B. Resistance C. the number of turns in a coil D. The charge in the magnetic flux
1792	Which of the following is a thermodynamic potential	A. Internal energy B. Enthalpy C. Gibb's free energy D. All of these
1793	The distance between any two consecutive bright or dark fringes is called.	A. Wavelength B. Amplitude C. Fringe spacing D. Wavelet
1794	The heat frequency is the	A. Sum of the two frequenceis B. Produce of the two frequency C. Difference of the two frequencies D. Ratio of the two frequencies
1795	The energy content of a wave is proportional to its.	A. Wave velocity B. Wave velocity squared C. Frequency D. Amplitude squared
1796	The energy transported by a wave is proportional to the square of the.	A. Wavelength of the wave B. Period of the wave C. Amplitude of the wave D. Frequency of the wave
1797	What does the electricity meter record.	A. Charge B. Current C. Energy D. Power
1798	Which of the following has negative specific heat	A. Ne B. CO2 C. O2

		C. O_2 D. Sturated vapours
1799	A point source of light is situated at large distance The nature of the wave front at the point will be.	A. Cylindrical B. Spherical C. Plane D. Ellipical
1800	A small and a large rain drops are falling thgouth all.	A. Large drop falls faster B. Both move with same velocity C. Small drop falls faster D. Small drop does not fall
1801	In the free expansion of a perfect gas there is no.	A. work done B. Heat exchnged C. Internal energy changed D. All of the above
1802	The primary purpose of using a large aperture objective in a telescope is to produce	A. Brighter image B. Larger image C. Wider field of view D. Smaller image
1803	Atomic reactor is based on	A. Controlled chain reaction B. Uncontrolledly chain reaction C. Nuclear fission D. Nuclear fusion
1804	In a Nuclear reactor which material is often used as modeerator.	A. Water B. Graphite C. Uranium D. Water and graphite
1805	How solid hydrogen is obtained.	A. By cascade process B. By joule kelvin effect C. By adiabatic expansion D. Lowering temperature below melting point
1806	Who gave the idea of matter wave.	A. De Broglie B. Planck C. Einstein D. Huygen
1807	If a wave vibrate 10 times in 1 s with a speed of 10 m s-1 the correct wavelength of the wave is.	A. 1 m B. 10 m C. 20 m D. 100 m
1808	The first super conductor was discovered by	A. Faraday B. Lenz C. Kamaerlingh Ornes D. Oersted
1809	The sweetness or harshness of a sound depends upon its	A. Wavelength B. Frequency C. Amplitude D. Regularity
1810	In case of a convex lens the rays closed to and parallel to the principal axis will converge after refraction by the lens at a point.	A. Optical centre B. Principal focus C. Focal plane D. Principal axis
1811	The total energy of a body executing SHM is directly proportional to	A. The amplitude B. The square of the amplitude C. Square root of the amplitude D. Reciprocal of the amplitude
1812	A force of 100 N acts on body of mass 5 kg for 10 s. The velocity of the body will be.	A. 2 ms -1 B. 20 m s-1 C. 200 ms-1 D. 2.000 m s-1
1813	At high altitudes, the blood flows out of nose and ear because.	A. Blood pressure increase at high altitudes B. Percentage of oxygen in the air increase C. Atmospheric pressure decreases there D. Density of blood decreases of high altitudes
1814	If the wave length of a wire is 1 cm and its period is 0.02 s, the velocity of the wave will be	A. 20 cm s-1 B. 50 cm s-1 C. 60 cm s-1 D. 100 cm s-1
		A. Charge less property and has no

1815	Neutrino9 is a particle with	spin B. Charge less property and has spin C. Charge less like electron and has spin D. The same property as neutron
1816	Two waves which combine to produce a resultant by reinforcing each other of every point demonstrate.	A. Destructive interference B. constructive interference C. Refraction D. polarization
1817	The phenomenon of interference comes about because waves obey	A. the impulse momentum theorem B. An inverse square law of intensity C. The principle of reciprocity D. The principle of super position
1818	When a fluid in a cylinder expands through a distance 'd' against a piston of area 'A' which is exerting a constant pressure 'P' the work done is equal by.	A. PAD B. PA/d C. Pd/A D. Pd/A2
1819	When did max planck suggest that energy is released or absorbed in discrete packets.	A. 1899 B. 1900 C. 1905 D. 1911
1820	Which of the following is non renewable source of energy.	A. Wind B. Coal C. Hydroelectric D. Biomass
1821	When of the following radiations are not emitted by electron transitions in atoms.	A. Visible rays B. Ultraviolet rays C. Infrared radiations D. Alpha particles
1822	The SI unit of angular velocity is.	A. cm s-1 B. rad s-2 C. cm s-2 D. rad s-1
1823	The unit of electrochemical potential is.	A. J mol-1 B. volt C. J C-1 D. Mol J-1
1824	Wave length of a LASER can be sued as a standard of.	A. Angle B. Time C. Length D. Temperature
1825	Where is the velocity of electrons maximum in a diode.	A. Near the cathode B. Near the anode C. In the space ini between the two elecrode. D. It is same throughout the tube
1826	The unit formed by combining the fundamental untis of length , mass and time.	A. Absolute units B. Practical units C. Bse unit D. Derived units
1827	A positive and a Negative charge are initially 4 cm apart When they are moved closer together so that they are now only 1 cm part the force between them is.	A. 4 times smaller than befor B. 4 times larger than before C. 8 times larger than before D. 16 times larger than before
1828	The main advantage of step index fiber is.	A. The size of the cable B. The equality of the cbale C. Difference in the wavelengths of signals D. All of the above
1829	If length of second pendulum becomes four times than its time period will become	A. Two times B. Four times C. Six times D. Eight times
1830	The total energy of an electron in an orbit around the nucleus is.	A. Zero B. Unity C. Infinity D. Negative
1831	What happens to the energy of a charged condenser is plate separation is increased.	A. It decreases B. It increases C. It becomes zero D. It remains unchanged
		A. At magnetic poles

1832	The vertical component of earth's magnetics field is zero.	B. At geographical poles C. At magnetic equator D. Everywhere
1833	Which of the following is a conserfative force.	A. Electric force B. Frictional force C. Normal force D. propulsion force of a rocket
1834	A sample of an ideal gas may i) energy adiabatically, or ii) Expand isothermally. the net flow of heat into the gas from the exterior is.	A. Positive is each case B. Negative for i) and positive for ii) C. Zero for i) and positive for ii) D. Positive for i) and negative for ii)
1835	During a thunderstorm, an observer sees a lighting flash Six second later he hears the thunder The speed of sound is 330 m s-1. Approximately how far away is the observer from the lighting.	A. 1/2 km B. 1/3 km C. 2 km D. 1/20 km
1836	The erecting lens of a telescope produces	A. A shorter instrument B. wider field of view C. A larger image D. A sharp image
1837	the alpha particle does not travel for enough in air.	A. Due to its intense ionization B. Due to its large mass C. Due to its high charge D. Due to its Hight Ionization
1838	Which of the following quantity is defined in terms of the rate of change of electric displacement field.	A. Conventional current B. Electronic current C. Displacement current D. Pulsating current
1839	At high frequency the current through a capacitor will be	A. Small B. Zero C. Large D. Infinity
1840	The transition of inner shell electrons in heavy atoms gives rise to the emission of.	A. Low energy b-particle B. High energy b-particle C. High energy X- rays D. High energy gama rays
1841	The centre of gravity of a rectangular or parallel gram shaped plate is.	A. At the centre B. At the intersection of diagonals C. At the intersection of medians D. At the axis of rotation
1842	The unit of Rydberg constant R is	A. m B. m3 C. m⁻¹ D. m-2
1843	X-rays are	A. Longitudinal wave B. Transvers waves C. Secondary waves D. Fast sound waves
1844	In L - C parallel circuit the coil draws a.	A. Lagging current B. Leading current C. Lagging voltage D. Leading voltage
1845	The SI unit of density is.	A. kg m2 B. kg m-2 C. kg m-3 D. kg m2 s-2
1846	If the vector sum of all the torques is zero then	A. 1st condition is satisfied B. 2nd condition is satisfied C. Centre of mass is lowered D. Gravity becomes zero
1847	If a force 5 N applied parallel to a moment arm 5 m then torque will be	A. 0 N m B. 5 N m C. 10 N m D. 25 Nm
1848	Efficiency of a Carnot engine can never be 1 or 100% unless cold reservoir is at absolute temperature.	A. 0 K B. 100 K C. 273 K D. 373 K
1849	The thermionic current increases when	A. Area of filament is decreased B. Area of filament is increased C. Temperature is decreased D. Work function is increased

1850	Current per unit area is called.	A. Electric potential B. Current density C. Charge density D. Electric intensity
1851	A point mass moves through a circular arc of length 'l' and radius 'r' in time 't' what is the angular velocity about the centre of the circle.	A. i/rt B. r/it C. 2/rt D. rt
1852	Angular momentum of a body under a central force is	A. Zero B. Maximum C. Minimum D. Constant
1853	The reciprocal of decay constant lamda of a radioactive element is.	A. Half life B. Mean life C. Total life D. Curie
1854	Original source of biomass is.	A. Stars B. Moon C. earth D. Sun
1855	An operational amplifiers will act as an inverting amplifier when the input signal is connected to.	A. Inverting terminal B. Non inverting terminal C. Earthened wire D. Both a and b
1856	Rate of change of momentum is called.	A. Torque B. Force C. Impulse D. Inertia
1857	Davison and Germer received the Nobel Prize in	A. 1929 B. 1931 C. 1935 D. 1937
1858	How many calories of heat are required to evaporate completely 1 g or ice at 0 ^{O}C	A. 120 calories B. 520 calories C. 720 calories D. 920 calories
1859	use of outer layer in optical fires called cladding is mainly to.	A. Scatter thelight B. Absorb unwanted light C. Transmit the light D. Produce total internal reflection
1860	The field in which the work done is independent of the path followed.	A. Conservative field B. Electric field C. Magnetic field D. Non conservative field
1861	The cause of ferromagnetism is.	A. Orbital motion of elections B. spin Motion of electrons C. Permanent dipole memento D. Spin angular momentum
1862	Which one of the following does not have the same dimenstions.	A. Energy ,work, heat B. Pressure, stress, Young's modulus C. Voltage, electromotive force, potential difference D. Electric flux, electric field, electric dipole moment
1863	Which one of the following is an example of a reversible process.	A. Work done against friction B. Heat produced by current C. Melting of ice D. See back effect
1864	An example of simple harmonic motion is	A. Fast moving cricket ball B. Motion of bicycle C. Motion of a bee D. Motion of simple pendulum
1865	In the equation P = IV cos Theta Cos theta is known as	A. Phase angle B. Liming angle C. Phase D. Power factor
1866	Which of the following statemtents is worng.	A. Charge is quantized B. Charge is conserved C. There is not field near an isolated charge at rest D. A moving charge produces both electric and magnetic field

		electric and magnetic field.
1867	a 5 kg mass is falling freely the force acting on it will be.	A. 0 N B. 9.8 N C. 5 N D. 19.6 N
1868	Cs - 137 is a radioisotope used ot determine the thickness of the walls of steel pipes Cs 137 is chosen because it emits	A. Radiowaves B. Alpha particles C. Beta particles D. gama particles
1869	If air is replaced by any other dielectric medium, the force between two charges.	A. Decreases B. Increases C. Remain the same D. Becomes infinity
1870	A diver leaving the diving board makes a somer sault in the air.	A. This is due to gravitational force B. The moment of inertia is decreased during the turn C. His moment of inertia is increased D. He pushes at the air for making the true
1871	A heat engine with 100% efficiency would have to	A. Do no work B. Be at a uniform temperature C. Use no heat D. Discharge at 0^oC
1872	A single silicon photovoltaic cell produces a voltage of the order of.	A. 0.3 V B. 0.6 V C. 0.9 V D. 1.2 V
1873	A resistor whose resistance decreases with increasing intensity is.	A. Light dependent resistor B. Thermistor C. Thermocouple D. Strain gauge
1874	When an arrow is shot from a bow, it has K.E. which is given to it by	A. The elongated tail B. The stretched string of bow C. The throw of archer D. The sharp arrows head
1875	A man in an elevator ascending with an acceleration will feel that his weight.	A. Has increased B. Has decreased C. Remains the same D. Vanishes
1876	How much would be the volume of ice formed by freezing 1 litre of water.	A. 1.0 litre B. 1.09 litre C. 1.90 litre D. 2.0 litre
1877	Mean free path of gas molecules is inversely proportional to its	A. Volume B. Pressure C. Temperature D. Size
1878	A step up transformer has a turn ratio of 1:100 A voltage of 20 V is connected across the primary coil What is the secondary voltage.	A. 0.2 V B. 5 V C. 100 V D. 2000 V
1879	Both xenon and cesium each have	A. 24 isotopes B. 28 isotopes C. 32 isotopes D. 36 isotopes
1880	Restoring force in the SHM is	A. Centripetal B. Frictional C. Conservative D. Non conservative
1881	The nib of fountain pan is split of convey ink down the nib by the phenomenon of.	A. Adhesion B. Cohesion C. Osmosis D. Capillary
1882	A voltmeter is a	A. High resistance galvanometer B. Low resistance galvanometer C. Zero resistance galvanometer D. Infinite resistance galvanometer
1883	The angle subtended at the centre of a circle by an arc equal to its radius is equal to.	A. One rotation B. One radian C. One degree D. One revolution
		A. Directly proportional to the current

1884	Self inductances of solenoid is	A. Directly proportional to the current flowing through the wire B. Directly proportional to its length C. Inversely proportional to area of corss section D. Directly proportional to number of turns
1885	No entropy change is associated with	A. Isothermal process B. Adiabatic process C. Isochoric process D. Isoteric process
1886	Which of the following forms of electromagnetic energy has the longest wavelength.	A. Microwaves B. Radio waves C. Infrared waves D. ^{Visible light}
1887	A straight wire carrying current will experience a force when placed in a uniform magnetic field if	A. The current and field are parallel B. The current and field are at an angle C. the current and field are parallel in opposite directions D. All of the above
1888	The locus of all points in the same state of vibrations are known as.	A. half period zone B. A wavefront C. A half wave zone D. A full wave zone
1889	The resistance of a coil changes directly with	A. The current of A.C. B. The frequency of A.C C. The inductance D. Both B and C
1890	In which of the following studies x-rays are not helpful.	A. Crystal structure B. Crystal surface C. Crystal symmetry D. Crystal atoms
1891	A radiation spectrum which is continuously distributed over a frequency region without being broken up into lines or bands is known as.	A. Continuous spectrum B. Band spectrum C. discrete spectra D. Absorption spectrum
1892	The free electron theory explains conduction in	A. Insulators only B. Metals only C. Semi conductor only D. Non metals only
1893	How many types of quarks were suggested i 1964 quark theory.	A. Two B. Three C. Four D. Five
1894	A given quantity of an ideal gas is at pressure P and temperature T What is the isothermal bulk modulus of the gas.	A. 2/3 P B. P C. 2P D. 3/2 P
1895	When sound waves enter a different medium the quantity that remains unchanged a.	A. Wavelength B. Speed C. frequency D. Intensity
1896	A spring of force constant k is out into three equal pats. The force constant of earth part will b e.	A. k B. 3 k C. k/3 D. k/2
1897	In which process the passage of an electric current through a conductor releases heat.	A. Joule heating B. Ohmic heating C. resistive heating D. All of these
1898	Which of the following is an example of irreversible process.	A. Melting of ice B. Work done against friction C. Pettier heating and cooling D. All isothermal and adiabatic changes
1899	What is the degree of magnetization of a material.	A. Susceptibility B. Ablitity C. Retentivity D. Capacity
1900	Which of the following is not SI base unit.	A. kilogram B. Ampere C. Coulomb D. Mole

		D. Mole
1901	Which physical law expresses the relationship between the heat generated and the current through a conductor.	A. Ohm's law B. Kirchoff's law C. Joule's law D. Ampere's law
1902	A force of 10 N acting on a certain spring produces an extension of 40 mm Two such spring are connected end to end and this double length spring is extended by 40 mm What is the strain energy.	A. 0.05 J B. 0.10 J C. 0.20 J D. 0.40 J
1903	Commutator was invented in	A. 1820 B. 1830 C. 1834 D. 1840
1904	Negative feedback	A. Increases stability B. Decreases stability C. Produces oscillatory D. Cannot occur
1905	A fixed pulley is emplyed to	A. Do some work B. Change the directionof force C. Do more work with the same force but without using the pulling D. Have mechanical advantage greater than 1
1906	Angular moment is conserved due to	A. Variable force B. Constant force C. Central force D. Uniform force
1907	One volt is equal to.	A. One joule per coulomb B. One dyne per coulomb C. One newton per coulomb D. One watt second
1908	Which of the following cannot be polarized.	A. Ultraviolet rays B. Radio waves C. T.V waves D. Sound waves
1909	Which law states that magnetization is inversely proportional to temperature for a fixed value fo the field.	A. Curie's law B. Voltmeter C. Ammeter D. Wattmeter
1910	The Beta particles move along.	A. Straight path B. Curved path C. Zig Zag path D. Circular path
1911	One calorie equals to	A. 1.2 J B. 2.2 J C. 3.2 J D. 4.2 J
1912	The zero point of Kelvin scale is called.	A. Critical point B. Terminal point C. Absolute zero D. Mid point
1913	Fluid mechanics is the study of how fluid move and the other ting involved is	A. Energy B. Velocity C. Forces D. Position
1914	What happens to the intensity or the brightness of the lamps connected in series as more and more lamps are added.	A. Increases B. Decreases C. Remains the same D. Cannot be predicted
1915	A generator running in reverse may be called as.	A. A.C. Generator B. D.C. generator C. Motor D. Commutator
1916	Two magnetic lines of force	A. Out near the poles B. Never cut each other C. Cut at a neutral point D. Cut according to position of the magnet
1917	A slow neutron can cause fission in	A. Uranium -238 B. Uranium-235 C. Hydrogen-1 D. Thorium -232

1918	The amplitude of sound wave determines its	A. Pitch B. Loudness C. Reverberation D. Interference
1919	A 4 kJ mass of copper of specific heat capacity of 400 J kg-1k-1 is heated for 160 s by a heater of power 200 W what is the rise in temperature.	A. 10 K B. 16 K C. 100 K D. 160 K
1920	Direct current generators use.	A. Coiled rings B. Split rings C. slip rings D. solenoid rings
1921	The average K.E. of the molecules of an ideal gas in a closed rigid container is increased by a factor of 4 What happen to the pressure of the gas.	A. It remains the same B. It increases by a factor of 2 C. It increases by a factor of 4 D. It increases by a factor of 8
1922	The SI unit of coefficient of viscosity of	A. kg m s-1 B. kg m-1 s-1 C. kg m-1 s-1 D. kg ms -2
1923	Which of the following does not reflect the laws of static charges.	A. like charges repel B. Opposite charges attract C. Neutral charges repel D. Neutral objects are attracted to charged ones.
1924	What is an elementary particle, the basic unit of light and all other form of electromagnetic radiation.	A. Phonon B. Photon C. Neutron D. Proton
1925	For how long the sensation of sound persists in our brain.	A. 0.1 s B. 0.2 s C. 0.3 s D. 0.4 s
1926	Which of the following is a non conservative force.	A. Gravitational force B. Air resistance C. Elastic force D. Tension in a string
1927	From which radiation it is most difficult to protect oneslelf.	A. Alpha radiation B. Beta radiation C. Gama radiation D. Heat radiation
1928	The dimensions of work are	A. [MLT-2] B. [ML2T-2] C. [ML2T-1] D. [MLT-1]
1929	The centre of gravity of a cylinder is.	A. At the intersection of medians B. At the centre C. At the middle point of axis D. At the intersection of diagonals
1930	Which of the following is the most massive particle.	A. Deuteron B. Alpha particle C. Neutron D. positron
1931	A unijunction transistor	A. Has only one junction B. Is a two terminal device C. Is fabricated from germanium D. Is fabricated fromuranium
1932	Which of the following medium can transmit both transverse and longitudinal waves.	A. Solid B. Gas C. Liquid D. Plasma
1933	The force that bonds protons and neutrons together int he nucleus despite the electrical repulsion of the protons is called.	A. Molecular force B. Nuclear force C. Atomic force D. Gravitational force
1934	A photon is chasing an electron, whose speed is 0.9 c What is their relative speed.	A. 0.1 C B. C C. 0.8 C D. 0.9 C
		A. 10.2 V

1935	The ionization potential of hydrogen atom is.	B. 13.6 V C. 12.97 V D. 27.2 V
1936	When two identical waves are superimposed the velocity of the reasultant wave.	A. Increases B. Decreases C. Become zero D. Remain unchanged
1937	Two pure inductors each of self inductance L are connected in parallel The total inductance of the combination is.	A. L B. 2L C. L/2 D. L/4
1938	What type of current is produced by batteries.	A. Direct current B. Alternating current C. Pulsating current D. Convection current
1939	Thermodynamics deals with	A. Isolated systems B. The interactions among various parts of the system C. The microscopic behavior of a system D. The interactions between system and surrounding
1940	Which of the following proves that light waves are transverse in nature.	A. Diffraction B. Interference C. Polarization D. Refraction
1941	A body is said to be in translations equilibrium, only if the vector sum of all the forces acting on it becomes.	A. Double B. Zero C. Maximum D. Quadruples
1942	Which law states that the angle of incidence equals the angle of refraction.	A. Law of reflection B. Law of refraction C. Snell's law D. Hygens's principle
1943	White light a tungsten filament lamp is passed through sodium vapor and viewed through a diffraction gritting Which of the following best describes the spectrum which would be seen.	A. Coloured lines on a black background B. Coloured lines on a white background C. Dark lines on a coloured background D. Dark lines on a white background
1944	The helium nucleus does not contain	A. Two electrons B. Two neutrons C. Two protons D. Six nucleons
1945	Transistors with various combinations are widely used as switches in.	A. electric generators B. Rectificers C. Amplifiers D. Computers
1946	What is the number of degree of freedom of an oscillating simple gravity pendulum	A. 1 B. 2 C. 3 D. 4
1947	On which factor the self induction does not depends upon.	A. Number of turns of the coil B. the core material C. Weight of the coil D. Area of the cross section of the coil
1948	Which of the following are particle accelerators.	A. Cyclotrons B. Synchrotrons C. Linear accelerators D. All of the above
1949	What must be changing when a body is accelerating uniformly.	A. Force acting on the body B. Mass of the body C. Speed of the body D. Velocity of the body
1950	In microwave ovens, heating is produced by the phenomena of	A. Reflection B. Refraction C. Damped oscillations D. Resonance
1951	X-rays can cause	A. Malaria B. Dysentery C. Cancer D. Blood pressure

1952	When light enters glass from air it suffers a change in.	A. Wavelength B. Wave front C. Velocity D. All of these
1953	If two bodes are under a collision that is not perfectly elastic then.	A. K.E. is conserved but momentum is not B. Momentum is conserved but K.E. is not C. Neither K.E. nor momentum is conserved D. Both K.E. and momentum are conserved
1954	The escape velocity	A. Increases with the increase of the mass of the body B. Depends on the type of body used C. Is independent of mass of the body D. Decreases with the increases of the mass of the body
1955	Which of the following phenomenon is caused by the different speeds of light in differed optical media.	A. Reflection B. Refraction C. Diffraction D. Total internal reflection
1956	Which statement is true about the Magnetic poles.	A. Unlike poles repel B. Like poles attract C. Magnetic poles do not effect each other D. A single magnetic pole does not exist
1957	LED is a p-n junction that emits	A. Visible light B. X- rays C. Ultraviolet light D. electromagnetic waves
1958	On increasing the temperature of source efficiency of Carnot engine.	A. Increase B. Decrease C. First increases and then decreases D. Does not change
1959	The SI unit of momentum is.	A. kg m s-2 B. kg m2 s-2 C. kg m s-1 D. kg s-1
1960	If the temperature of the source and sink are increased by same amount the efficiency of the engine.	A. Increases B. Decreases C. Remains unchanged D. May increases of decrease
1961	A single quantum of electromagnetic radiation is termed as.	A. Compton B. Photon C. Hyperon D. Meson
1962	Geiger counter was designed by	A. Wilson B. Geiger and Muller C. Lawrence D. Mosely
1963	The viscosity of an ideal fluid is	A. Infinity B. Unity C. Zero D. 0.5
1964	What is shapes of a pure note	A. Sinwave B. Sawtooth C. Square wave D. Triangular wave
1965	An image formed on the film of camera is	A. Real , inverted and diminshed B. Virtual, inverted and diminshed C. Real upright and diminished D. Virtual, upright and idminshed
1966	The function of collimator in spectrometer is to	A. Disperse the light B. Reflect the light C. Make the light parallel D. Diffract the light
1967	Which of the following wavelength lies in X-rays region.	A. 1 A B. 100 A C. 1,000 A D. 10.000 A

1968	The immediate cause of alternating currrent in the secondary coil of a transformer is	A. A changing electric field B. a changing magnetic field C. The motion of primary coil D. The iron core of the trnasformer
1969	Iron loss in a dynamo arises because of.	A. The resistance of armature coil B. The production of eddy current C. The presence of mechanical friction D. The leakage of flux
1970	Blood pressure of a person	A. Increases with age B. Describe with age C. Have no change D. Stops with age
1971	Equipotential surfaces in an electric field are always.	A. Spherical B. Closed surfaces C. Tangent to electric lines of force D. Perpendicular to electric lines of force
1972	In a diffraction pattern, the width of any fringe	A. Is directly proportional to slit width B. Is inversely proportional to slit with C. Has no dependence on slit width D. Is zero
1973	Rate of flow of a liquid is expressed in	A. Litre m-3 B. Litre s-1 C. Litre m-1 D. Litre s
1974	Why freezer a refrigerator is located in the top section	A. Motor is not affected B. Heat gained from environment is less C. The entire chamber of freezer is cooled quickly D. Heat gained from environment is more
1975	The international acceptable scientific notation of a number 123.4 is	A. 12.34 x 10¹ B. 1.234 x 10² C. 1.234 x 10³ D. 0.123 x 10³
1976	When transvers wave travelling in a less dense medium is reflected at an interface will a more dense medium.	A. A trough becomes a crest B. There is no phase shift C. There is phase shift of 360 ^o D. A crest remains a crest
1977	A water wave is an example of	A. Electromagnetic wave B. Longitudinal wave C. Transverse wave D. Reverberation
1978	A number of spherical capacitors of different radii have same potentials The surface charge density on them	A. I equal B. Is proportional to their radii C. Is inversely proportional to their radii D. Is inversely proportional to square of their radii
1979	A charged particles moving in a magnetic field experiences a resultant force.	A. Proportional to its K.E. B. In the direction of the field C. In the direction opposite to its motion D. In the direction perpendicular to both the field and its motion
1980	In a purely resistive circuit carrying A.C. current the.	A. Current and voltage are always in phase B. Current lags the voltage by 1/4 cycle C. Voltage lags the current by 1/4 cycle D. Current leads the voltage by 1/2 cycle
1981	The most readily fissionable isotope of uranium has atomic mass of	A. 234 B. 235 C. 236 D. 238
1982	Why are charged capacitors dangerous.	A. They can leak a harmful chemicals B. They can cause loss of vision C. They can release a lethal charge D. They can release gama rays.

1983	At which temperature surface tension of liquid will be maximum	A. 0 ^oC B. 20 ^oC C. 30 ^oC D. 100 ^oC
1984	Minor losses through values, fittings, bends etc are modeled as proportional to	A. Velocity head B. Static head C. total head D. Pressure drop
1985	The bending of light when it enters a medium	A. Reflection B. Refraction C. Diffraction D. Total internal reflection
1986	A straight copper wire a moved in a uniform magnetic field such that it cuts the magnetic lines of force then.	A. emf will not be induced B. emf will beinduced C. sometimes emf will be induced and sometimes not D. The number of turns iin the coil increases
1987	A device used to measure the strain of an object and it is a type of resistor that changes value with applied strain is a	A. thermistor B. Strain gauge C. Thermocouple D. Potentiometer
1988	The scientist who first noted that a compass needle was deflected when in the neighborhood of a current carrying wire was.	A. Joseph Henry B. Hans Christian Oersted C. Michael Faraday D. J.J. Thomson
1989	Nuclear force exists between	A. Proton proton B. Neutron -neutron C. neutron -proton D. All of these
1990	Mean life of a radioactive sample is 100 s its half life will be	A. 0.693 s B. 1 s C. 6.93 s D. 69.3 s
1991	X-rays used for	A. Cutting boring and precision welding B. Retina stitching in eye operations C. Detecting heavy elements under the earth D. Deflecting flaws in welding and casting
1992	Distance between two consecutive nodes or antinodes is equal to.	A. Lamda /4 B. Lamda C. Lamda /2 D. 2 lamda
1993	A body of mass 2 kg attached to a spring is pulled to a distance of 4 cm What will be the value of spring constant K.	A. 490 N m-1 B. 980 N m-1 C. 1260 N m-1 D. 1960- N m-1
1994	A diverging lens may not have	A. Negative focal length B. Positive focal length C. One plane surface D. One convex surface
1995	The molecular weight of D2O is	A. 16 B. 18 C. 20 D. 24
1996	A fixed mass of an ideal gas absorbs 1000 J of heat and expands under a constant pressure of 20 kPa from a volume of 25 x 10-3 m3 to a volume 50 x 10-3 The change internal energy of the gas is.	A. 500 J B. 1000 J C. -1000 J D. Zero
1997	Which of the given geometries will result in the largest convection consfficient.	A. Vertical plate B. Diagonal plate C. horizontal plate facing upwards D. Horizontal plate facing downwards
1998	The process by which nuclei emit a ,b and gama rays in order to attain stability is called.	A. Radioactive disintegration B. Radio activity C. B decay D. Radioactive transmulation
1999	Which characteristics successively increases in the musical scale	A. Pitch B. Quality

1999	Which characteristics successively increases in the musical scale.	C. Loudness D. Amplitude
2000	When a person holding a pall is moving in the forward direction, the work done on the pall is	A. Positive B. Negative C. Zero D. Equal to gravity
2001	The product of mass and specific heat of a substance is called.	A. Latent heat B. Water equivalent C. Atomic heat D. Heat capacity
2002	if two conductors in the same vicinity each possess one coulomb of charge of opposite sign when one volt potential difference in established between them we may say they possess	A. A capacitance of one henry B. An inductance of one henry C. An impedance of one ohm D. A capacitance of one farad
2003	Any alternations product in shape length of volume where a body is subjected to some external force is called	A. Deformation B. Polymerization C. Crystallization D. Elasticity
2004	A convex lens of focal length 6 cm to be used to from a virtual image three times the size of the object Where must the lens be placed.	A. 1 cm B. 2 cm C. 3 cm D. 4 cm
2005	A constant mass undergoes uniform acceleration the correct statement about the resultant force acting on the mass is.	A. It increases uniformly w.r.t time B. It is constant but not zero C. It is proportional to the displacement from a fixed point D. It is proportional to the verlocity
2006	Which given material is the best for making connecting wires	A. Nichrome B. Iron C. Gold D. Copper
2007	The number of molecules or atoms in a specific volume of a gas is independent of their	A. Volume B. Pressure C. Size D. Temperature
2008	Which are the two basic properties of a vector.	A. Curvature and direction B. Magnitude and direction C. Magnitude and sign D. Curvature and sign
2009	The speed of bodies exceeding the speed of sound is called.	A. Superesonic B. Ultrasonic C. Infrasonic D. Super fast
2010	Two tuning forks of frequencies 260 Hz and 257 Hz are sounded together the number of beats produced per seconds is.	A. 1 B. 3 C. 4 D. 257
2011	The normal adjustment the magnifying power of an astronomical telescope is.	A. fe/fo B. fo/fe C. fo+ fe D. fo -fe
2012	Solar cells are thin wafers made from	A. Uranium B. Nickel C. Silicon D. Cadmium
2013	An object is placed at the focus of a diverging lens The image is located at	A. The focus B. 2 F C. Infinity D. Half away between the lens and the focus
2014	When two vectors have opposite directions we say that they are	A. Parallel B. Antiparallel C. Perpendicular D. Out of phase
2015	When current in an inductor is increasing	A. energy is lost B. Energy is being stored in the magnetic field of the inductor C. Energy is being drained from the magnetic field of the inductor D. Eddy current is produced
2016	When a positive charge is allowed to move from positive to negative plate, then it will gain	A. P.E. B. K.E

	Which a positive charge is allowed to move from positive to negative plate, then it will gain	C. Gravitational energy D. Electrical P.E.
2017	Which of the following defines P.E. per unit charge.	A. Electric current B. Charges C. Potential D. Electric field
2018	If the number of gas molecules in a cubical vessel is increase from N to 3 N then its pressure and total energy will be.	A. Half B. Three times C. Double D. Four times
2019	Which of the following is its own anti particle.	A. Photon B. Electron C. Proton D. positron
2020	Who designed the atomic reactor.	A. Wilson B. Rutherford C. Teller D. Fermi
2021	The gravitational field strength at a point p on the earth's surfae is numerically equal to.	A. The acceleration of free fail at p B. The change in P.E. per unit distance at P C. The change in P.E. per unit distance at P D. The work done in bringing unit mass from infinity to P
2022	Which of the following is a method of energy transfer.	A. Conduction B. Wave motion C. Radiation D. All of these
2023	Light wave are	A. Longitudinal B. Transverse C. Sometimes longitudinal and sometimes transverse D. Neither longitudinal nor transverse
2024	A wave source of frequency 1,000 Hz emits waves of wavelength 0.1 m How long does it take for the waves to travel 2500 m.	A. 4 s B. 25 s C. 40 s D. 100 s
2025	When a helium atom loses an electron it becomes.	A. An a particle B. A proton C. A positive helium ion D. A negative helium ion
2026	As oscillator is basically an amplifier with loop gain	A. Zero B. Infinity C. Less than unity D. More than unity
2027	Which one of the following temperature scales is independent of the properties of any particular substance.	A. Kelvin scale B. Gas scale C. Thermodynamic scale D. Celsius scale
2028	The point of which an applied force produces a linear acceleration but no rotation is called.	A. Centre of the body B. Centre of the mass C. Centre of gravity D. Weight of the body
2029	Most cooking involves	A. Adiabatic process B. Isothermal process C. Isobaric process D. Isochoric process
2030	Which of the title for combining of notes that produce jarring effect on the ear.	A. Noise B. Melody C. Harmony D. Discord
2031	At which temperature a ferromagnetic material becomes paramagnetic on healing.	A. Kelvin temperature B. Celsius temperature C. Curie temperature D. Fahrenheit temperature
2032	Due to which phenomenon, diamond shrines so brightly.	A. Scattering of light B. Refraction of light C. Dispersion of light D. Total internal reflection
		A. 7.7 MeV B. 9.6 MeV

2033	The binding energy per nucleon for uranium is about.	C. 13.6 MeV D. 21.6 MeV
2034	the wavelength of continuous X-rays is inversely proportional to.	A. Intensity of incident electron beam B. Temperature of the target C. Intensity of X-rays D. The energy of electrons striking the target
2035	The branch of medicine which deals with the anatomy physiology and diseases of the eye	A. Ophthalmology B. Radiology C. Cardiology D. Andrology
2036	The ratio of tensile stress to tensile strain is called.	A. Shear modulus B. Bulk modolus C. Young's modulus D. Elastic limit
2037	Two bullets a and b have masses 1 kg and 12 kg respectively.	A. K.E. of B will be twice that of A B. K.E. of A will be twice that of B C. Both have same K.E. D. K.E. of A will be half that of B
2038	Which is not the strongest and the most familiar type of magnetism.	A. Diamagnetism B. Para magnetism C. Ferromagnetism D. All of these
2039	The 1st condition of equilibriums satisfied if.	A. Linear acceleration is zero B. Angular acceleration is zero C. The vector sum of all the forces is zero D. The vector sum of all the torque is increase
2040	Which of the following is not essential for the free oscillations of a mass attached to a spring.	A. Elasticity B. Gravity C. Inertia D. Restoring force
2041	Which are the following describe the study of static magnetic fields.	A. Electrodynamics B. Megnetostatic C. Electrostatic D. Paraamagnetism
2042	In the experiment of production of X rays the anti cathode should be bombarded with.	A. A particles B. Beta particles C. Electrons D. Protons
2043	To produce beats it is necessary to use two waves.	A. Travelling in opposite direction B. Of slightly different frequencies C. Of equal wavelengths D. Of equal amplitudes
2044	According to Gauss's law the number of electric field lines crossing any closed surface is.	A. numerically equal to the enclosed charge B. Equal to the enclosed positive charge C. Equal to teh electric field inside the surface D. Equal to the charge density on the surface.
2045	Which of the following is a properly of a uniform gravitational field.	A. If acts equally in all directions. B. Its field strength is the same at all points with in it C. the gravitational potential has the same value of all points with in it D. It produces zero force on a stationary test mass placed in it.
2046	When a dielectric material is placed in an electric field it	A. Conducts B. Exhibits an electrical discharge C. Become polarized D. Undergoes electrolysis
2047	The work required to lift a ball of mass 'm' from the surface of the earth to an infinite distance is	A. Absolute P.E. of the body B. P.E of the body C. K.E. of the body D. Chemical energy of the body
2048	The graph between restoring force and time in SHM is a	A. Straight line B. Parabola C. Sine wave D. Circle
		A. Directly as the square of the

2049	The electric field intensity of a point charge varies.	A. Directly as the square of the distance from the charge B. Directly as the square of the charge C. Inversely as teh distance from the charge. D. Inversely as the square of the distance from the charge
2050	The action and reaction forces	A. Must act upon the same body B. Must act upon different bodies C. Must be equal in magnitude but need not have the same line of action. D. Different speed at the different height during ascent and during descent.
2051	How much Ice will melt by 50,000 J of heat.	A. 120 J B. 130 g C. 140 J D. 150 g
2052	The permeability of air is	A. 0.5 B. zero C. infinity D. Unity
2053	The working of the rocket is based on the principle of.	A. Electromagnetism B. Conservation of momentum C. Floatation D. Hydraulic system
2054	If a rope in a hand makes 10 oscillations after every 2 s. the frequency of the wave is.	A. 2 C s-1 B. 5 C s-1 C. 10 C s-1 D. 20 C s-1
2055	The SI unit of mutual induction a	A. Vs-1 A-1 B. V m -1 A-1 C. Henry D. Tesla
2056	The focal length of a thin converging lens is 10 cm What is the maximum distance from the lens that the object can be placed so that the lens acts as a magnifying glass.	A. 5 cm B. 10 cm C. 15 cm D. 20 cm
2057	In a transistor which one is very thin.	A. Collector B. Emitter C. Base D. Depletion region
2058	If the transformer turns ratio is 2 and the impedance eof primary coil is 250 Ohms then the impedance secondary coil will be.	A. 125 Ohms B. 250 Ohms C. 500 Ohms D. 1000 Ohms
2059	LASER is a device which can produce	A. Monochromatic beam of light B. Coherent beam of light C. An intense beam of lgiht D. All of these
2060	Why FET amplifiers are called voltage controlled devices.	A. Input is a current signal B. Output is a current signal C. Input is a voltage signal D. Output is a voltage signal
2061	Artificial radioactivity was discovered by	A. Rontgen B. Becquered C. Rutherford D. Marie Curie and Pierre Curie
2062	What is the power factors of wattles current.	A. Infinity B. Unity C. 0.5 D. Zero
2063	The power dissipation in a pure inductive or capacitive circuit is.	A. Maximum B. Minimum C. Zero D. Infinity
2064	The dioptre power of concave lens of 10 cm focal length is.	A. 0.1 dioptre B. 1.0 diopter C. 10 dioptre D. -10 dioptre
	Two waves of the same frequency and amplitude travelling in opposites directions along the	A. Stationary waves B. Transverse wave

2065	Two waves of the same frequency and amplitude travelling in opposites directions along the same path in the same medium produce.	B. Transverse wave C. Longitudinal waves D. Compressional waves
2066	The process in which no heat enters or leaves the system is called.	A. Isdobaric B. Isochoric C. Isothermal D. Adiabatic
2067	A gama ray of energy 1900 MeV is absorbed by	A. Proton antiproton pair B. Electron positron pair C. Producing heat in the substance D. The orbit
2068	Which of the following has teh maximum permeability.	A. Paramagnetic substances B. Ferromagnetic substances C. Diamagnetic substances D. Iron oxide
2069	A heat engine can develop efficiency equal to 100% if the temperature of the sink is	A. Less than that of source B. Equal to that of source C. 0 K D. 0 ^oC
2070	Which particle has zero charge and zero rest mass.	A. Neutron B. Proton C. Electron D. Photon
2071	Below which temperature gas can be liquified by increasing its pressure.	A. Natural temperature B. Boyle temperature C. Critical temperature D. Absolute zero
2072	On which parameter the time required to charge a capacitor depends upon.	A. magnitude of charge B. Applied potential difference C. Capacitances D. Time constant
2073	A polaroid is	A. A red light filter B. A device used for a analyzing polarized light C. A device used in polarimeter D. An adjustable shutter
2074	Convention is the transfer of thermal energy by means of currents in	A. Pressure B. Temperature C. Liquids D. Fluids
2075	Blood is	A. A compressible fluid B. an incompressible fluid C. Non viscous fluid D. Not a fluid
2076	It is deduced that a piece of metal is already a magnet if	A. A copper wire is attracted to it B. A copper wire is repelled by it C. One end of a compass is repelled by it D. Both ends of a compass needle are attracted to it.
2077	Which of the following is a unit of electric field strength.	A. c m-1 B. v m-2 C. N C-1 D. N V-1
2078	Cobalt -60 is a radioactive element with half life of 5.25 years. What fraction of the original sample will be left after 26 years.	A. 1/4 B. 1/8 C. 1/16 D. 1/32
2079	The rate of change of momentum of a body falling under gravity is equal to its.	A. P.E. B. K.E C. Weight D. Density
2080	Light product by a single Nicole is	A. Unpolarized B. Plane polarized C. Circulatory polarized D. Elliptically polarized
2081	Which term best describes the nature of light from modern view point.	A. Waves B. Rays C. Particles D. Photons
2082	The distribution of electrical charge i an object caused by teh influence of nearby charges is	A. Electric potential B. Electrostatic induction

2082	called.	C. Electric flux D. Electric dipole moment
2083	Which one of the following quantities is conserved in a nuclear reactor.	A. Energy only B. Mass only C. Momentum only D. Mass energy and momentum
2084	Davision and Germer got Nobel prize for their work on	A. The dual nature of particles B. The wave nature of particles C. The corpuscular nature of particles D. All of the above
2085	In a compound microscope objective lens acts as a projector and eye place as a	A. Compensator B. Erecting lens C. Simple microscope lens D. Turntable
2086	A plane of polarization is one in which	A. vibrations take place B. No vibrations take place C. Longitudinal vibrations take place D. Transverse vibrations take place
2087	Mean free path of gas molecules in inversely proportional to its.	A. Weight B. Temperature C. Pressure D. Volume
2088	when a body accelerates.	A. Its direction always changes B. Its mass always changes C. Its velocity always changes D. It falls towards the earth
2089	The rate of which blood is delivered to the patient in a transfusion depends on	A. Hight of the blood level in the suspended container B. Volume of the container C. Shape of the container D. Material of the container
2090	A girl weighing 400 N takes 4 s to run up the stairs How much P.E. does she gain if height of the stairs is 3 m.	A. 120 J B. 400 J C. 200 J D. 1200 J
2091	Which was the transparent front part of the eye that covers the pupil, iris and interior chamber.	A. Cornea B. Fovea C. Sclera D. Choroid
2092	One weber is equal to.	A. N A-1 B. N m-1 A C. N mA-1 D. N m-1 A-1
2093	The amplitude of a vibrating body placed in a resistive medium.	A. Increases exponentially with time B. Decreases exponentially with time C. Remains constant with time D. Cannot be observed
2094	An uncharged di electric body experience a force when placed in an electric field if.	A. A field in non zero at the body B. The electric is a polar material C. The dielectric is a non polar material D. The field is non uniform over the body
2095	In a crystal lattice	A. Atoms are arranged in an order way B. Atoms are arranged in a random way C. Holes are arranged in an order way D. Electrons are arranged in an order way
2096	Which quantity has dimensions different from the others.	A. Energy per unit volume B. Force per unit area C. Angular momentum per unit mass D. Pressure
2097	The radius of second orbit of hydrogen atom is	A. 0.071 A B. 0.142 A C. 4.752 A D. 9.5298 A
2098	Hygen's principle states that	A. Light travels in straight line B. Light travels in electromagetic waves C. All points of primary wave front are

		source of secondary wavelets D. Light has dual nature
2099	Photophone was invented by	A. Graham bell B. Galileo C. Michelson D. Faraday
2100	A magnet is pushed horizontally towards a coil of insulated wire inducting an emf in the coilin which direction does the coil try to move.	A. Downwards B. Upwards C. Away from the magnet D. Towards the magnet
2101	Which configuration is used to connect high impedance source to a low impedance lead.	A. CE B. CB C. CC D. BE
2102	In free expansion of a gas. the internal energy of the system.	A. Increases B. Descreases C. Remain unchanged D. Becomes infinite
2103	A body is thrown vertically upward with initial velocity 9.8 ms-1 it will reach the height.	A. 4.9 m B. 19.9 m C. 29.4 m D. 49.2 m
2104	If the earth stopped rotating the weight of objects at either pole would.	A. Be grater B. Be less C. Vary with altitude D. Be the same before
2105	Image formed by a concave lens is.	A. Real B. Magnified C. Virtual D. Real and magnified
2106	A Galilean telescope with objective of coal length 30 cm and eyepiece of focal length.8 cm when focused for infinity has length equal to	A. 7.5 cm B. 2.2 cm C. 38 cm D. 240 cm
2107	Sub atomic particles which experience strong nuclear force are.	A. Leptons B. Hadrons C. Mesons D. Quarks
2108	Torque is equal to.	A. The product of magnitude of force and acceleration B. The product of magnitude of force and momentum C. The product of magnitude of force and displacement D. The product of magnitude of force and angular velocity
2109	In de Brogile model electron orbit must form	A. Spectrum B. Wave packets C. Franhoffer lines D. Clouds
2110	In case of a convex lens, when object is placed at F	A. the image is formed beyond 2 F B. the image is formed between F and 2 F C. No image is formed D. the image is formed behind the object
2111	In simple harmonic motion it is found that the total energy of a system.	A. Is independent of the amplitude B. Depends on the amplitude squared C. Is independent of the mass D. All of these
2112	An inflated tyre suddenly bursts As a result of this temperature of the surrounding	A. Increases B. Descreases C. Remains constant D. May increase or decrease
2113	Low frequency response of an amplifier is mainly limited by.	A. Biasing configuration B. Coupling capacitor C. By pass capacitor D. Input impedance
2114	The length of piano wire is 1 m and mass is 20 g and it is stretched by a fore of 200 N the fundamental frequency of sound waves produced by the piano will be	A. 50 Hz B. 100 Hz C. 150 HZ D. 250 Hz

2115	For a prism of particular and given wavelength the resolving power varies as	A. First power of lens of its base B. Square of inverse length of its base C. Increases of length of its base D. Cube of the length of its base
2116	Which of the following colours of light passes through glass with minimum speed.	A. Green B. Yellow C. Red D. Violet
2117	The length of Galilean telescope is given by	A. fo + fe B. fo- fe C. 1/fo - 1/fe D. 1/fo = 1/fe
2118	The variation in the speed of sound with temperature is greater in.	A. Gases B. Metals C. Liquids D. Insulators
2119	The Pressure will be low where the speed of the fluid is	A. Zero B. High C. Low D. Constant
2120	Pressure of a gas depends upon	A. Only on the molecular speed B. Only on the speed of molecules on a unit volume C. Only on the mass of molecules D. Number of molecules mass and speed in a unit volume
2121	Which of the following solids exhibits only short range order.	A. Amorphous solids B. Polymeric solids C. Crystalline solids D. All of the above
2122	Which vector gives the displacement from one point another in space.	A. Null vector B. Position vector C. Unit vector D. Distance vector
2123	A pulse on the string is inverted when it is reflected from	A. Free end B. Fixed end C. Either of the two D. Rubber cord
2124	Which of the following are examples of transverse and a longitudinal wave.	A. Radio and sound waves B. Radio and light waves C. Light and water ripples D. Light and sound waves
2125	Magnetic fields do not interact with	A. Stationary electric charges B. Stationary permanent magnets C. Moving electric charges D. Moving permanent magnets
2126	A rocket propulsion is based on the principle of.	A. Conservation of momentum B. Conservation of mass C. Conservation of energy D. Floatation
2127	Magnetic moment is a	A. Scalar B. Vector C. Phasor D. Tensor
2128	Gases exert pressure on walls of the vessels because gas molecules.	A. Possess momentum B. Have finite volume C. Collide with each other D. Obey gas laws
2129	A force of 50 N acts on a body for 10 s What will be change in momentum.	A. 5 Ns B. 500 Ns C. 200 Ns D. 800 N s
2130	When stationary waves are formed in a closed organ pipe.	A. A node is formed at the closed end of the pipe B. An antinode is formed at the closed end of the pipe C. Each particle at the node experience zero acceleration D. The maximum pressure occurs at the nodes
		A. The scattering of light beams

2131	A application of the phenomenon of polarization is in	B. Explaining the blue colour of sky C. Identifying chemicals elements D. Analysis of mechanical stress
2132	In gases, the charge carriers are.	A. Atoms B. Molecules C. Electrons only D. Ions and electrons
2133	Bernouli's equation includes as a special case of.	A. Hook's law B. Torricelli's therorem C. Third law of motion D. Archimedes principle
2134	An immersion heater rated at 150 W is fitted into a large block of ice at 0 oC. The specific latent heat of fusionism 300 J g-1. How long does it take to melt 10 g of ice.	A. 5 s B. 10 s C. 15 s D. 20 s
2135	Which is the fundamental quantity in electrostatic.	A. Electric charge B. Electric potential C. Electric field D. Electric field intensity
2136	How many terminals does a BJT have.	A. 1 B. 2 C. 3 D. 4
2137	Which of the following devoices are used for measuring temperature.	A. Thermocouples B. Thermistors C. Thermometers D. All of these
2138	What is the triple point of water.	A. 273 .15 K B. 0 K C. 100 K D. 0 oC
2139	Specially designed solid state detector can be used to detect.	A. Alpha particles B. Beta particles C. Gama rays D. X- rays
2140	If the image is virtual then its distance from the lens is taken.	A. Positive B. Negative C. Double D. Half
2141	When a current of 2 A flows for 5 s through a lamp 120 W of power are used How much charge flows through the lamp.	A. 10 C B. 12 C C. 24 C D. 60 C
2142	Which material has the larges resistivity.	A. Silver B. Germinium C. Amber D. Sulphur
2143	In the absence of air resistance all objects regardless their weights, fall with	A. Same velocity B. Different velocity C. Same acceleration D. Different acceleration
2144	In electronegative waves the electric and magnetic fields are.	A. Parallel to each other B. Perpendicular to each other C. antiparallel to each other D. At an angle of 45 ^o to each other
2145	Which of the following should not change in an Isothermal process.	A. Volume B. Pressure C. Temperature D. All of these
2146	Which of the following is a thermodynamic temperature scale.	A. Celsius scale B. Fahrenheit scale C. Kelvin scale D. Rankine scale
2147	a cube with sides 2 cm long is made from a material of density 8 g cm-3 What is the mass of the code	A. 4 g B. 16 g C. 32 g D. 64 g
2148	What is the power factor of LR circuit.	A. Unity B. Zero C. infinity D. Between 0 and 1

2149	If a di electric is placed between the plates of a capacitor, its capacitance.	A. Decreases B. Increases C. Remains unaffected D. Is zero
2150	Prince Louis and Vector de broglie received the Nobel prize in.	A. 1919 B. 1923 C. 1927 D. 1929
2151	Lines of Balmer series are emitted by hydrogen atom when the electron jumps from	A. The first orbit to any other orbit B. Higher orbits to second orbit C. Higher orbits to first orbit D. The third orbit to higher orbit
2152	X-rays eject electrons from matter by	A. Pair production B. Pair annihilation C. Compton effect D. Photoelectric effect
2153	Why should household appliances be connected in parallel with the voltage source.	A. To increase the resistance of the circuit B. To decreases the resistance of the circuit C. To provide each appliance the same voltage as the power source D. To provide each appliance the same current as the power source.
2154	The SI unit of modulus of elasticity us	A. N m-2 B. N m-1 C. N m D. N m -3
2155	Which following properties of molecules of a gas is same for all gases at a particular temperature.	A. Momentum B. Mass C. velocity D. K.E.
2156	The result of the alpha particle scattering experiment gave evidence for which of the following.	A. Nuclear fusion B. Radio active decay C. Existence of isotopes D. Nuclear atom
2157	The actual gas can behave like an ideal gas at	A. Low density and high pressure B. High density and high pressure C. Low density and low pressure D. High density and low pressure
2158	Why a positive charged object is made neutral by someone touching it.	A. Electrons flow from the object B. Proton flow onto the object C. Protons flow from the object D. Proton flow onto the object
2159	Critical mass is the minimum mass needed for	A. Fusion B. H-Bomb C. Chain reaction D. Binding energy
2160	Tesla is the unit for measuirng	A. Magnetic intensity B. Magnetic induction C. Magnetic moment D. Electric potential
2161	What will be the effect on the speed of a Transerv wave in a string. If tension is made 4 times.	A. Remains the same B. Increase a times C. Becomes double D. Becomes 3 times
2162	the ratio of applied stress to volumetric strain is called.	A. shear modulus B. Bulk modulus C. Young's modulus D. elastic limit
2163	The index of refraction depends on	A. the focal length B. The speed of light C. The image distance D. The object distance
2164	If a wave vibrate 10 times in 1 s with a speed of 10 m s-1 the correct wavelength of the wave is.	A. 1 m B. 10 m C. 20 m D. 100 m
2165	When using the formula E = h lambda what unit should energy have.	A. Joule B. Watt second C. Newton metre D. Electron volt

2166	The centre of the sun produces a large amount of energy what is the source of this energy.	A. Chemical reaction B. Nuclear fission C. Nuclear fusion D. Radioactive decay
2167	Which kind of motion is exhibited by molecules of monoatomic gas.	A. Rotatory B. Vibratory C. Translatory D. Random
2168	A bus and a car moving with the same K.E. are acted upon by the same retarding force then the	A. car will stop first B. Bus will stop first C. Both will stop simultaneously D. Both will never stop
2169	The length of an astronimical telescope for normal vision is.	A. fo x fe B. fe/fe C. fo - fe D. fo + fe
2170	A body of mass 8 kg moves along a circle of radius 4 m with constant speed of 88 m s-1 The centripetal force on the body is.	A. 10 N B. 128 N C. 48 N D. 148 N
2171	Who measured the intensity of emitted energy with wavelength radiated from a blackbody at different temperature.	A. Lummer B. Pringsheim C. stefan D. Both a and c
2172	The air plane lift is based on	A. Archimedes principle B. Law of conservation of momentum C. Bernoulli's principle D. Law of conservation of energy
2173	A geostationary satellite covers	A. 100 ^o of longitude B. 120 ^o of longitude C. 130 ^o longitude D. 140 ^o of longitude
2174	Who is generally credited with the invention of first optical microscope.	A. Hans Lippershery B. Glavanni faber C. Galileo D. issac Newton
2175	When mas of a string is increased 4 times its original valve, the velocity of the wave.	A. Becomes double B. Reduces to one half C. Reduces to one fourth D. Increases 4 times to its original value
2176	The unit of time constant RC is.	A. Second B. second-1 C. Second -2 D. Second 2
2177	The number 0.02 x 10^{-8} in standard form will be written as.	A. 2 x 10⁻¹⁰ B. 2 x 10⁻⁸ C. 20 x 10⁻⁸ D. 20 x 10⁻⁶
2178	Waves that have the same direction of vibration as their direction of travel are.	A. Longitudinal waves B. Transverse wave C. Standing waves D. hair wave
2179	The resultant of two force 3 N and 4 N making an angle 90 ^{o} with each other is.	A. 1 N B. 3 N C. 5 N D. 10 N
2180	To which law of thermodynamics, the concept of temperature is related to.	A. Zeroth law B. First law C. Second law D. Third law
2181	Who suggested that energy is radiated or absorbed in discrete packers called quanta.	A. Max. Planck B. Stefan C. Lummer D. Boltzmann
2182	In order to har an echo what is the minimum distance between the sound and reflecting surface.	A. 0.65 m B. 16.5 m C. 1.65 m D. 165 m
		A. Crystalline solids

2183	Amorphous solids are also called	B. Glassy solide C. super conductors D. Polymeric solids
2184	Light rays after passing through is convex lens.	A. Bend away from principal axis B. Bend towards participial axis C. Remain unriveted D. Travel parallel to the principal axis
2185	Neither the position nor the momentum of a particle can be predicted with arbitrarily great precision is the statement of.	A. Archimede's principle. B. Heisenberg uncertainty principle C. Mosley's law D. Schrodinger's wave equation
2186	The minimum value of charge on any object is.	A. 1.6 x 10⁻²⁹ C B. 1.6 x 10⁻¹⁹ C C. 1.6 x 10⁻⁹ C D. 1 C
2187	What is the direction of the magnetic field lines inside a bar magnet.	A. From north pole to south pole B. From south pole to north pole C. From side to side D. There are no magnetic field lines
2188	Thermal conduction in metals differs from thermal conduction in insulators,. The reasons for this is that , in metals heat can be transported by.	A. Electrons B. Lattice vibrations C. Photons D. Positive ions
2189	The maximum height reached by a projectile with a velocity of 14 m s-1 at an angle of 30 ^{o}with the horizontal is.	A. 1.5 m B. 2.5 m C. 1 m D. 2 m
2190	Prince Louis and vector de Brogtle got Nobel Prize for their work on.	A. The dual nature of particles B. The wave nature of particles C. the corpuscular nature of particles D. All of the above
2191	The value of principal quantum number for an ionized atom is.	A. 13.6 eV B. 27.2 eV C. 54.4 eV D. 100 eV
2192	A body at rest may have	A. Speed B. Momentum C. Acceleration D. Energy
2193	Efficiency of a half wave recitifier is.	A. Almost negigible B. More than full wave rectifier C. Less than full wave rectifier D. Equal to full wave rectifier
2194	The Compton effect in X-rays proves that	A. Electrons have wave property B. x-rays have wave properly C. X-rays have particle characteristics D. Electrons cannot exist
2195	Which temperature is required for the fusion of two nuclides.	A. 10⁶ K B. 10⁷K C. 10⁸K D. 10 ⁹ K
2196	According to Huygen's principle	A. Light bends round corners B. Light travels in a straight line C. All points on primary wave front are considered centre of distances D. Light has wave nature
2197	No current flows between two charged bodies when connected if they have same.	A. Charge B. Capacity C. Potential D. Shape
2198	A preset or trimmer can be a.	A. Variable resistor B. Variable capacitor C. Variable inductor D. All of these
2199	The SI unit of heat capacity is.	A. kg J B. Kg J-1 C. J K-1 D. Kg J-1 K-1
2200	The term used for the emission of electrons when light strikes a surface.	A. The zeeman effect B. The photo electric effect C. Skin effect D. Compton effect

2201	The SI unit of absorbed dose in.	A. Bel B. Weber C. Rem D. Grey
2202	Gauss's law a most useful in cases where the charge distributions.	A. Are made up of discrete point charges B. Are finite in their spatial extent C. Give rise to inverse square law fields D. Posses a certain amount of symmetry
2203	Which one of the following pairs does not have the same dimensions.	A. Force and weigfht B. Pressure and stress C. Capacitance and resistance D. Energy and work
2204	If in Young's double slit experiments the separation between two slits is halved then the fringe width	A. Remains unchanged B. Becomes double C. Reduces to half D. Becomes 3 times
2205	Which of the following refers to the distance from crest to crest of a wave.	A. Frequency B. Wavelength C. Amplitude D. Period
2206	Two unchanged objects A and B are rubbed against each other, when object B is placed near a negatively charged object C the two objects repel each other Which of these statements is true abut object A.	A. It remains uncharged B. It becomes positively charged C. It becomes negatively charged D. It is unpredictable
2207	The value of 'g' is maximum	A. Above the earth's surface B. Below the earth's surface C. At the earth's surface D. At the centre of earth
2208	Static electricity occurs when	A. two metals are connected to a battery B. Different insulators are rubbed together C. The weather is very humid D. Different conductors are rubbed together
2209	If an object moves with velocity of light the apparent mass of the object as compared to list original mass is	A. greater B. Smaller C. Same D. zero
2210	If D1 and D2 are the powers of two lenses placed in contact then the power of the combination will be.	A. D1+D2 B. D1-D2 C. D1/D2 D. D1 x D2
2211	The value of open loop gain for the amplifier is	A. zero B. very low C. very high D. of an intermediate vaue
2212	It is possible is distinguish between transvers and longitudinal waves from the property of.	A. Refraction B. Interference C. Diffraction D. Polarization
2213	As a positively charged rod is brought closer and closer to a positively charged electroscope the gold leaf.	A. diverges B. Converges C. is neutralized D. Is unaffected
2214	A body is termed as perfectly elastic if.	A. It can move freely B. Its surface is perfectly somooth C. It is not affected by an external force D. It recovers the original shape when the deforming force is remover
2215	Who discovered the exclusion principle which states that no two electrons can occupy the same quantum mechanical state in a given system.	A. Neils Bohr B. Issac Newton C. Wolfgang Pauli D. Max Planck
2216	A man in an elevator descending with an acceleration will conclude that his weight has	A. Increased B. Decreased C. Constant value D. Zero value

2217	Which of the following has maximum viscosity.	A. Oxygen B. Mercury C. Water D. Glycerine
2218	The corss product of two vectors is zero when they	A. Are parallel to each other B. Are perpendicular to each other C. Are at an angle of 120 ^o D. Both are equal
2219	An operational amplifier can be used as a	A. Comparator B. Night switch C. Inverting and non inverting amplifier D. All of the above
2220	Dioptre is the term used for describing the	A. Intensity of light B. Density of air C. Power of light D. Refractive index
2221	The emission of photons by a metal when electrons are incident is called.	A. Photo electric effect B. Pair production C. X-rays production D. Gama ray production
2222	Who proposed that light energy travels in space by means of wave motion.	A. Maxwell B. Planck C. De-Broglie D. Huygen
2223	If the specific latent heat of vaporization of oxygen is 214 kJ kg-1 how much heat will be absorbed when 3.0 kg of oxygen is boiled off at its boiling point.	A. 14 kJ B. 64 k J C. 140 kJ D. 642 k j
2224	The magnetic field inside a solenoid is	A. Zero B. Infinite C. Uniform D. Non uniform
2225	The product of force and duration of impact is called.	A. Density B. Momentum C. Torque D. Impulse
2226	In compound microscope, image formed by the eyepiece is	A. Real B. Invented C. Erect D. Diminished
2227	A horizontal force of 15 N accelerates a 4 kg object rom rest along a horizontal surface at a rate of 3 m s-2 At the end of 2 s the objects momentum will be.	A. 12 kg m s-1 B. 24 kg m s-1 C. 30 kg m s-1 D. 45 kg m s-1
2228	Which Muslim Scientist is regarded as 'Father of Optics"	A. Nasir al Din al Tusi B. Ibn Ishaq al kundi C. Ibn Musa Al khawarzmi D. Ibn al Haithem
2229	A body of mass 2 kg is suspended from the celling of an elevator moving up with an acceleration 'g' its apparent weight in the elevator will be.	A. 9.88 N B. 19.8 N C. 29.4 N D. 39. 2 N
2230	Which scientist announced for the first time that the universe is expanding.	A. Einstein B. Newton C. Edward Hubble D. Karl Marx
2231	Contrivances for converting heat into work are called.	A. Heat pumps B. Heat engines C. IC engines D. Jet engine
2232	Which of the following quantities has three significant figures.	A. 3.0066 m B. 5.05 x 10⁻²⁷ kg C. 301.0 s D. 1.009 m
2233	Which of the following is not a mode of radioactive decay.	A. Positron emission B. Electron capture C. Fusion reaction D. A decay
2234	Which given element has lowest work function	A. Na B. Al

2234	Which given element has lowest work function	C. si D. C
2235	Capacitance is define das	A. VC B. Q/V C. QV D. V/Q
2236	A darling ion amplifier is characterized by	A. High voltage and current gain B. High input resistance and current gain C. High output resistant and current gain D. Low input resistance and current gain
2237	What is the amount of mechanical work done to melt 1 g of ic completely	A. 4.2 J B. 42 J C. 80 J D. 336 J
2238	At what speed the mass of a body will be doubled.	A. 0.67 C B. 0.77 C C. 0.87 C D. 0.97 C
2239	What is the total entropy change during an reversible cycle.	A. Unity B. Infinite C. Zero D. Cannot be detected
2240	Change in which parameter determines the work done by a gas during adiabatic prcoess.	A. volume B. Pressure C. Temperature D. Weight
2241	Electromagnetic waves are produced by	A. Charge at rest B. Accelerated changes C. Heating a conductor D. Electroplating
2242	When a ray of light is incident perpendicularly to the boundary of two media.	A. It pass through without bending B. It is speed is faster int he optically denser medium C. It derivates from its original path D. It is totally reflected back
2243	The focal length of a thin converging lens is 10 cm What is the maximum distance from the lens that the object can be placed so the lens acts as a magnifying glass.	A. 5 cm B. 10 cm C. 15 cm D. 20 cm
2244	The internal energy of monoatomic gas is.	A. 3/2 RT B. Independent of temperature C. In the form of K.E. D. Partially kinetic and partially potential
2245	All particles, of a wave front vibrate	A. In same phase B. In opposite phase C. Upward down D. Left and right
2246	Which of the following is most suitable for the core of the electromagnetism	A. Air B. Steel C. Su Ni allow D. Soft iron
2247	A wire stretches 8 mm under a load of 60 N A second wire of the same material with half the diameter and a quarter of the original length of the first wire, is stretched by the same load What is the extension of the wire.	A. 1 mm B. 4 mm C. 8 mm D. 16 mm
2248	Two convex lens focal length 'f' use din combination become telescope. When the distance between them is.	A. 1 B. 4f C. 2f D. f/2
2249	During the projectile motion, the horizontal component of velocity.	A. Changes with time B. Becomes zero C. Does not change but remains constant D. Increases with time
2250	In any collision between two bodies there need nor the conservation of	A. Linear momentum B. Angular momentum C. Total energy D. Kinetic energy

2251	Interference through thin films depends upon	A. Thickness of thin film B. Nature of material of thin film C. angle of incident light D. All of the above
2252	When an electron and a positron are annihilated, then number of protons produced is.	A. 1 B. 2 C. 3 D. 4
2253	On which principle the induction coil works on.	A. Self induction B. Ampere's rule C. Mutual induction D. Gauss's law
2254	Colour of light is determined by its	A. Amplitude B. Velocity in air C. Wavelength D. State of polarization
2255	A type of resistor whose resistance varies significantly with temperature is.	A. Thermistor B. Thermocouple C. Strain gauge D. Potentiometer
2256	Who studied the change in velocity with the help of geometry for the first time.	A. Nicole Oresme B. Galileo C. Alberuni D. Ibn al haithem
2257	Generally, electrical resistivity of intrinsic semiconductors decreases with increasing.	A. Pressure B. Volume C. Temperature D. Density
2258	When temperature increases, frequency of an organ pipe	A. Decreases B. Increases C. Remain the same D. Become zero
2259	Oscillatory motion is always under	A. An applied force B. Restoring force and inertia C. A periodic force D. A gravitational force
2260	The sum of positive and negative peak values are usually written as.	A. rms value B. p-p value C. Peak value D. Instantaneous value
2261	What is a measure of the separation of positive and negative electrical charges in a system of charges.	A. charge polarization B. Electric dipole moment C. Electric field D. Electrostatic induction
2262	Artificial polymers are made by a chemicals reaction known as.	A. Crystallization B. Electroplating C. Polymerization D. Polarization
2263	Which of the following is not a ferromagnetic materials.	A. Iron B. steel C. Copper D. Cobalt
2264	Which quantity provides a quantitative measure of disorder.	A. Entropy B. Enthalpy C. Randomness D. Chaos
2265	What is the average K.E. of gas molecules at temperature equal to K.	A. kt/3 B. 3/2 KT C. 1/2 KT D. 2/3 KT
2266	The ability of eye to focus near as well as distant object is termed as.	A. Myopia B. Persistence of vision C. Power of accommodation D. Astigmatism
2267	On which of the following the kinetic theory of gases is not applicable.	A. Water vapour B. Smoke particles C. Bound particles D. Free electrons
2268	Which of the following is not an application of diodes.	A. A filters B. Bridge rectifier C. Half wave rectifier D. Full wave rectifier

2269	Which two terminal passive electronic component implements electrical resistance as a circuit element.	A. Capacitor B. Inductor C. Resistor D. Transformer
2270	Super conductor are used in	A. Fast computer chips B. Magnetic resonance imaging C. Magnetic levitation trains D. All of the above
2271	Which of the following is a transverse wave.	A. Sound wave B. Shock wave C. Hair wave D. Radiowave
2272	With high frequencies capacitive reactance	A. Increases B. Decreases C. Becomes double D. Becomes half
2273	What is a thermal properly of a material that determines the quantity of energy required to change the phase of a unit mass of that substance.	A. Specific heat B. Latent heat C. Internal energy D. Specific energy
2274	Advantage of using gases as thermornetic substrates is taht	A. Gases have a small coefficient of expansion B. Expansion of gases is irregular C. Gases can be obtained in pure form D. Gases have a large coefficient of expansion.
2275	The magnetic flux linked with a circuit when a unit current flows through it is known as.	A. Induced current B. Induced emf C. Coefficient of self induction of circuit D. Eddy current
2276	The centre of gravity of an irregular shaped object lies at	A. The intersection of diagonals B. The intersection of medians C. Its centre D. The axis of rotation
2277	A heat sensitive resistor is called.	A. Thermistor B. Varibale resistor C. Fixed resistor D. Zero resistor
2278	The dimension of momentum is.	A. [MLT-1] B. [ML2T-2] C. [ML3T-2] D. [MLT-1]
2279	In which reaction two or more small light nuclei nuclei come together or fuse to form a large nucleus.	A. Radioactivity B. Radioactivity dating C. Nuclear fusion D. Nuclear fission
2280	The electric current can be defined by its	A. Chemical effect B. Magnetic effect C. Heating effect D. All of these
2281	Which Russian Physicist first proposed the liquid drop model for the nucleus in 1928	A. Niels Bohr B. George Gamow C. Niel Armstrong D. Bill Clinton
2282	When the temperature of a body is equal to that of the surrounding then the body appears	A. Dull black B. Red hot C. In thermal equilibrium D. To be cold
2283	In which of the following controlled nuclear chain reaction is used to liberate energy.	A. Nuclear bomb B. Atomic bomb C. Hydrogen bomb D. Nuclear reactor
2284	The reluctance of a body to start moving is called.	A. Mass B. Weight C. Force D. Inertia
2285	The three law of motion first published in 1687 by Sir Issac Newton in his work.	A. Method of Fluxions B. Optics C. Principal Mathematica D. Arithmetic Universalism

2286	The note of the lowest frequency is called	A. beat B. Overtone C. Fundamental note D. Harmonic note
2287	The lowest stress at which strain increases in stress in called.	A. elastic limit B. Plastic limit C. Yield point D. Bulk strength
2288	The decay to form other nuclides by emitting particles and electromagnetic radiations by unstable nuclides is called.	A. Nuclear stability B. Radioactivity C. Carbon dating D. Spontaneously
2289	Electricity is transmitted at high voltage rather than at low voltage because.	A. It is generated at high voltage B. It is safer C. It requires less insulation D. It wastes less energy
2290	Which of the following has the highest relative biological effectiveness or the quality factor.	A. X rays and Gama rays B. Electrons C. Photons D. Alpha particles
2291	The deflection image due to oblique centric rays failing on the lens is called.	A. Coma B. Spherical aberration C. Astigmatism D. Curvature of image field
2292	An electric current in conductors is due to the flow of.	A. Positive ion B. Negative ion C. Positive charges D. Free electrons
2293	Which is the light sensitive tissue in human eye	A. Retina B. pupil C. Iris D. Cornea
2294	A mercury thermometer has	A. Low conductivity and low thermal capacity B. High conductivity and high thermal capacity C. Low conductivity and high thermal capacity D. High conductivity and high thermal capacity
2295	If we make the magnetic field stronger the value of induced emf is.	A. Decreased B. Increased C. Vanished D. Kept constant
2296	The energy stored per unit volume inside the solenoid is called.	A. Energy density B. Mass density C. Charge density D. Volume density
2297	The half life of uranium -238 is	A. 1620 years B. 4.5 x 10⁹years C. 3-8 days D. 23.5 minutes
2298	A expression for total work done by the battery to move charge against an induced emf is equal to.	A. W = LI2 B. W = 1/2 LI C. W = 1/2 L3I D. W = 1/2 LI2
2299	The specific heat capacity of a substance is the amount of heat required to.	A. Raise its temperature by 1 K B. Raise the temperature of 1 kg of the substance by 1 K C. Melt 1 kg of the substance D. Boil 1 kg of the substance
2300	Which of the following is deflected by an electric field.	A. Alpha particles B. X rays C. Gama rays D. Neutrons
2301	Arthur Holly Compton was awarded Nobel prize in.	A. 1923 B. 1927 C. 1931 D. 1934
2302	Eddy current can be minimized by	A. Moving the conductor rapidly B. Moving the conductor slowly

	Eddy current can be minimized by	C. Using a metallic core D. Using a laminated core
2303	During an adiabatic gas expansion the environment	A. Serves as a heat sink B. Serves as a heat source C. Must be at a higher temperature than the gas D. Does not have to participate
2304	What is the smalless total resistance using only a 6 ohm and 12 ohm resistors.	A. 2 Ohm B. 3 Ohm C. 4 Ohm D. 6 Ohm
2305	In a magnifying glass, the objective is placed at a distance	A. Less than the focal B. Between the focal length and twice the focal length C. Greater than twice the focal length D. At the focus of the lens
2306	A solid object is	A. Not elastic below the elastic limit B. Not elastic above the elastic lime C. Elastic below the elastic limit D. Not elastic at all
2307	Who explained Browian movement quantitatively.	A. Issac Newton B. albert Einstein C. James Maxewll D. Robert Brown
2308	The sound waves used sonography are	A. Less than 20 KHz B. of 20 Khz C. Greater than 20 KHz D. Of 20 MHz
2309	For capacitors connected is series.	A. The difference of potential is same for an B. The charge on each is the same C. The resultant capacitance is greater than D. The charge on each is not the same
2310	The scientific theory concerning the coming into existence of universe.	A. Cosmology B. Cosmogony C. Cosmography D. Cosmos
2311	MT-2 is the dimensionless formula of.	A. Moment of iniertia B. Viscosity C. surface tension D. Angular acceleration