

## **Physics**

1.	What is the mass of a small squat cylinder of ~47 cubic centimetres of platinum-iridium alloy kept in a laboratory in France?  (A) 1500 gm  (B) 250 gm  (C) 500 gm  (D) 1000 gm	9.	Who invented electric current measuring instrument ammeter?  (A) Leon Battista Alberti (B) Friedrich Drexler (C) Frenchman Lucien Vidi
2.	What is the unit of $^{1}/_{273.16}$ of the thermodynamic temperature of the triple point of water?  (A) Fahrenheit (B) Kelvin	10.	<ul> <li>(D) Evangelista Torricelli</li> <li>A numerical description of how far apart objects are called -</li> <li>(A) Distance</li> <li>(B) Displacement</li> </ul>
	(C) Celsius (D) Absolute Zero		(C) Meter (D) Light Year
3.	Which of the following is not the derived unit of "ohm"?  (A) electric resistance	11.	Electric charge is the physical property of matter that causes it to experience a force when placed in an field.
	(B) electric impedance		(A) Gravitational (B) Electric
	(C) electrical reactance	40	(C) Electromagnetic (D) None of these
	(D) electrical conductance	12.	X-rays make up X-radiation, a form of high-
4.	The derived unit of catalytic activity is –		energy electromagnetic radiation. Most X-rays
	(A) katal (B) lumen		have a wavelength ranging from  (A) 0.02 to 2 nanometres
5.	(C) lux (D) katal		(B) 0.03 to 3 nanometres
<b>5</b> .	Which of the following theorem is a fundamental relation in Euclidean geometry		(C) 0.04 to 4 nanometres
	among the three sides of a right triangle.		( <b>D</b> ) 0.05 to 5 nanometres
	(A) Rolle's theorem	13.	who discovered the X-rays?
	(B) Abel's theorem		(A) Wilhelm Conrad Roentgen
	(C) Pythagorean theorem		(B) Philipp Lenard
	( <b>D</b> ) Cayley–Hamilton theorem		(C) William Crookes
6.	According to the ohm's law "The current		(D) Robert Koch
	through a conductor between two points is	14.	X-rays have wavelengths than
	to the voltage across the two points.		visible light, which makes it possible to probe
	(A) Directly proportional		structures.
	(B) Indirectly proportional		(A) equal
	(C) Equal		(B) much longer
_	(D) None of these		(C) much shorter
7.	"Every point mass attracts every other point	45	(D) None of these
	mass by a force acting along the line	15.	Which of the following is not a way for X-rays to interact with matter?
	intersecting both points". This is Newton's –		(A) Photoabsorption
	<ul><li>(A) Gravitational Law</li><li>(B) Law of inertia</li></ul>		(B) Compton scattering
	(C) Second Law		(C) Rayleigh scattering
	( <b>D</b> ) Law of action-reaction		(D) None of these
8.	Which of the following instrument is used to	16.	If a long tube of glass is connected to a
<b>J</b> .	measure the speed, direction and pressure of	- <del></del>	vacuum pump and flow a high voltage in it
	the wind.		through electrodes. In initial stage when the
	(A) Audiometer (B) Ammeter		pressure is high, we see
	(C) Altimeter (D) Anemometer		<del>-</del>

	(A) No action seen		
	(B) Both electrodes will radiant	28.	Who invented Cresco graph?
	(C) Complete tube will radiant		(A) Satyendra Nath Bose
	(D) None of these		(B) Jagdish Chandra Bose
17.	Which of the given metal does not attracted by		(C) Prafulla Chandra Ray
	magnets?		(D) Meghnad Saha
	(A) Iron (B) Cobalt	29.	Who invented dynamite?
	(C) Nickel (D) Zinc		(A) Bertha Von suttner
18.	If a bar magnet is suspended by a thread and		(B) Emil Oskar Noble
10.	if it is free to rotate, its South Pole will move		(C) Alfred Noble
	towards the which pole of the earth?		(D) Immanuel Noble
	•	20	
	(A) North-East (B) South-West	30.	Which of these is the third equation Maxwell:-
40	(C) North (D) South		$(A) \nabla \cdot D = \rho V$
19.	What is the correct formula of "Young's		<b>(B)</b> $\nabla \cdot B = 0$
	modulus"?		(C) $\nabla \cdot E = -\partial B/\partial t$
	(A) $E = \frac{\sigma}{\varepsilon}$ (B) $E = \frac{\triangle L}{\varepsilon}$		<b>(D)</b> $\nabla \cdot H = \partial D/\partial t + J$
		31.	Who was the first Noble prize winner?
	(C) $E = \frac{\sigma}{\triangle F}$ (D) $E = \frac{\triangle L}{\triangle F}$		(A) Frédéric Passy (B) Marie Curie
20.	Paramagnetism is due to the presence of		(C) Esther Duflo (D) Alfred Nobel
	in the material.	32.	What is the value of G?
	(A) valence electrons (B) Free electrons		(A) 6.67259 x 10 <sup>-11</sup> N m <sup>2</sup> /kg <sup>2</sup>
	(C) paired electrons (D) unpaired electrons		( <b>B</b> ) 5.67259 x 11 <sup>-11</sup> N m <sup>2</sup> /kg <sup>2</sup>
21.	Which type of magnetisms are used in a		(C) 6.26538 x 10 <sup>-11</sup> N m <sup>2</sup> /kg <sup>2</sup>
	refrigerator, a freezer seal?		( <b>D</b> ) 6.8965 x 10 <sup>-11</sup> N m <sup>2</sup> /kg <sup>2</sup>
	(A) Temporary magnets	33.	Who gave the wave theory of light?
	(B) Electromagnets	00.	(A) Huygens (B) Isaac Newton
	(C) Permanent Magnets		(C) Albert Einstein (D) Archimedes
	(D) Neodymium magnets	34.	
22.		34.	The sonar system does work on which
<b>ZZ</b> .	The SI unit of magnetic flux is the		scientific principle?
	(A) siemens (B) Weber		(A) Reflection of ultrasonic waves
	(C) tesla (D) henry		(B) Thin film optical interference
23.	In physics, what is called the combination of		(C) Detection of cosmic radio rays
	electric and magnetic forces on a point charge		(D) Full internal reflection of light
	due to electromagnetic fields?	35.	Weak nuclear force acts between?
	(A) Lorentz force		(A) nucleus and electron
	(B) Magnetic force		(B) Protons and electrons
	(C) Ampère's force law		(C) nuclei and neutrinos
	(D) Repulsive electrical force		(D) Electrons and neutrinos
24.	What is the total capacity of Tarapur power	36.	"light is electromagnetic wave" is the principle
	station, which is operated by NPCIL?		of-
	<b>(A)</b> 2000 MW <b>(B)</b> 1180 MW		(A) Isaac Newton
	(C) 1400 MW (D) 800 MW		(B) Michael Faraday
25.	This is feebly magnetised in the direction of		(C) James Clarke Maxwell
	the magnetic field when placed in the strong		(D) Oersted
	magnetic field. it is –	<b>37</b> .	What is the gravitational acceleration of the
	(A) Paramagnet (B) Diamagnet	•	moon in compared to that of the Earth?
	(C) Ferromagnet (D) Electromagnet		· · · · · · · · · · · · · · · · · · ·
26.	Percentage of the Earth is surrounded by		(A) $\frac{1}{4}$ (B) $\frac{1}{6}$
20.	water-		(C) $\frac{1}{8}$ (D) $\frac{1}{10}$
	(A) 78% (B) 71%	38.	What is the mass of uranium atom?
			( <b>A</b> ) 10 <sup>-30</sup> kg ( <b>B</b> ) 10 <sup>-25</sup> kg
27	(C) 81% (D) 70.6%		(C) $10^{-26}$ kg (D) $10^{-34}$ kg
27.	What is dimension of work?	39.	The formula for oscillation time of a simple
	(A) [M-1L-2T-2] (B) [ML-1T-2]	<del>0</del> 0.	pendulum is –
	(C) $[MLT^{-2}]$ (D) $[ML^2T^{-2}]$		•
			<b>(A)</b> $T = 2\pi\sqrt{(L/g)}$ <b>(B)</b> $T = \pi\sqrt{(L^2/g)}$

<b>40. 41.</b>	resistance (R) and cur <b>(A)</b> $V = i / R$ <b>(C)</b> $R = Vi$	between Voltage (V), rent (I)? <b>(B)</b> $V = iR$ <b>(D)</b> $i = V / R$ following materials is	50.	A material that keep place is called- (A) Conductor (B) Semi-Conductor (C) Insulator	s each electron tightly in
	ferromagnetic? (A) Gold	(B) Nickel	51.	(D) Resister A woman's voice is	shriller than man's voice
42.	Momentum of a partic then, its kinetic energy	( <b>D)</b> Manganese cle is "p" with mass "m" will be- ( <b>B)</b> p²m		due to	1
43.	To comparing a giver	<b>(D)</b> $p^2/2m$ amount to its standard	<b>52</b> .		following would be most
	is called- (A) Unit (C) Fundamental unit (	(B) Measurement (D) None of these		powerful electro mag (A) Soft iron (C) Copper	( <b>B)</b> Steel ( <b>D)</b> Air
44.	light is the slowest-	ng medium the speed of	53.	Production of bea phenomenon of (A) Reflection	ts is a result of the  (B) Resonance
45.	(C) Glass	<b>(B)</b> water <b>(D)</b> Diamond distance from point A to	54.	(C) Interference	(D) Superposition entre of a bar magnet is_
	point B, then its displa (A) Maximum distance	cement will be - e between A and B		(A) Maximum	(B) Minimum
	(B) Minimum distance (C) Half of the distance points	ance between the two	55.	(C) Zero What do we call a suby a magnet?	( <b>D)</b> All The above bstance which is repelled
	(D) None of these		50	(C) Ferromagnetic	(B) Diamagnetic (D) None of these
46.	implies that the accedirectly proportional to	ne third law of Newton eleration of an object is to the net force acting on	56.	sea is called (A) Manometer	easuring the depth of the  (B) Fathometer
	-	irection of the net force, ortional to the mass of	<b>57</b> .	(C) Altimeter The source of sun's r (A) Nuclear fusion	( <b>D)</b> Hydrometer radium energy is. ( <b>B)</b> Nuclear fission
	<ul><li>(A) If the mass of the</li><li>(B) If the mass of the</li><li>(C) If the mass of the</li></ul>	object is increasing object is decreasing	58.	(A) Viscosity	<b>(D)</b> Cosmic radiations nich of these principles?
47.	( <b>D</b> ) If the object has no Static equilibrium occu ( <b>A</b> ) two forces are 6			<ul><li>(B) Gravitational force</li><li>(C) Boyles law</li><li>(D) Capillarity and s</li></ul>	urface tension
	opposite in direction <b>(B)</b> two or more equal on one-another	magnitude forces acting	59.	TV waves are also ki (A) Radio waves (C) Micro waves	nown as  (B) Cosmic rays  (D) U V rays
	<b>(C)</b> two unequal for direction	ces acting in opposite	60.	Filament of an electrelement?	ric bulb is made of which
48.	<b>(D)</b> more than two fo another What is the strongest	rces are acting on one-	61.	<ul><li>(A) Copper</li><li>(C) Iron</li><li>The hydraulic brakes</li></ul>	( <b>B</b> ) Silver ( <b>D</b> ) Tungsten s used in automobiles is a
40.	(A) Nuclear Force (B) Gravitational Force (C) Muscular Force			direct application of_ (A) Pascal's law (B) Toricellian law	·
49.	(D) None of these	ng is best conductor of	62.	(C) Bernoulli's theore (D) Archimede's prin	
	(A) Iron	(B) Silica (D) Silver		spherical shape due (A) Viscosity	

	(B) Gravitational force	75.	Materials for rain-proof coats and tents owe
	(C) Surface tension		their water-proof properties to
	(D) Atmospheric pressure		(A) Surface tension (B) Viscosity
<b>63</b> .	What is use of Cadmium rods in a nuclear		(C) Specific gravity (D) Elasticity
	reactor?	76.	Raman effect involves
	(A) Absorbing neutrons		(A) Scattering of light
	(B) Speeding neutrons		(B) Diffraction of light
	(C) Slowing fast neutrons		(C) Interference of light
	(D) Dispersing neutrons		( <b>D</b> ) All the above
64.	The difference between musical sound noise	77.	DC current can be controlled by which one of
	is due to which reason?	11.	•
	(A) Pitch		the following components?
	(B) Intensity		(A) Impedance (B) Resistance
	(C) Wavelength		(C) Capacitance (D) Inductance
G E	(D) Musical instrument	78.	Ball pen works on the principles of
65.	Which one among the following radiations		(A) Viscosity
	carries maximum energy? (A) Gamma rays (B) X–Rays		(B) Gravitational force
	<ul><li>(A) Gamma rays</li><li>(B) X-Rays</li><li>(C) Infra red rays</li><li>(D) Ultraviolet rays</li></ul>		(C) Boyle's law
66.	Which one of the following remains constant		(D) Capilliarity and surface tension
00.	while throwing a ball upward?	79.	TV waves are otherwise known as
	(A) Velocity (B) Displacement	13.	
	(C) Acceleration (D) Kinectic energy		(A) Radio waves (B) Cosmic rays
67	Which one of the following is the unit of		(C) Micro waves (D) UV rays
	activity of a radioactive source?	80.	The hydraulic brackes used in automobiles is
	(A) Siemens (B) Lux		a direct application of
	(C) Tesla (D) Becquerrel		(A) Pascal's law (B) Toricellian law
68.	Which one of the following common devices		(C) Bernoulli's theorem
	works on the basis of the principle of mutual		(D) Archimede's principle
	induction?	81.	In a reactor, cadmium rods are used
	(A) LED (B) Transformer	•	for .
	(C) Photodiode (D) Tube light		
69.	What is the name of the nuclear reactor at		(A) Absorping neutrons
	trombay?		(B) Speeding neutrons
	(A) Bhaba (B) Venus		(C) Slowing fast neutrons
	(C) Aryabhatta (D) Apsara		(D) Dispersing neutrons
70.	Split ring commutators are used in which of	82.	The difference between musical sound noise
	the following		is due to
	(A) AC motor (B) AC Dynamo		(A) Pitch (B) Intensity
71.	<b>(C)</b> DC Dynamo <b>(D)</b> All of the above Which of the following can be made into a		(C) Wavelength
<i>i</i> 1.	permanent magnet?		(D) Musical instrument
	(A) Lead (B) Soft iron	83.	Oil or soap film when in daylight appears
	(C) Hard steel (D) None of these	00.	coloured because of .
<b>72</b> .	Land and sea breezes are due to		(A) Reflection (B) Refraction
	(A) Conduction of heat		. ,
	(B) Radiation of heat		(C) Interference (D) Surface energy
	(C) Convection of heat	84.	Which one of the following would be most
	(D) Conversion of heat		powerful electro magnet?
73.	The period of revolution of an earth's satellite		(A) Soft iron (B) Steel
	close to the surface of the earth is		(C) Copper (D) Air
	(A) 50 minute (B) 65 minute	85.	The principle of Dynamo was discovered by
	• • • • • • • • • • • • • • • • • • • •		(A) Max Planck
<b>-</b> 4	(C) 55 minute (D) 60 minute		(B) Michael Faraday
74.	Nuclear sizes are expressed in a which unit?		(C) Albert Einstein
	(A) Fermi (B) Angstrom		(D) Sir Humphrey Davy
	(C) Newton (D) Tesla		(U) On Humpiney Davy

In a sitar wire which one of the following types of vibration is produced?	(A) X-rays (B) Ultravi (C) Visible light (D) Radio	•
•		
(A) Progressive longitudinal	<b>1.</b> Light from the star, Alpha Cent	
(B) Stationary longitudinal	nearest to the earth after the sui	i, reaches the
(C) Progressive transverse	earth in	ando
(D) Stationary transverse	(A) 4.2 seconds (B) 42 sec	
Recoil of a gun is an example of	(C) 4.2 years (D) 42 year	ırs
(A) Conservation of mass	5. Mirage is due to	
(B) Conservation of energy	(A) Unequal heating of differer	it parts of the
(C) Conservation into Kinetic Energy	atmosphere	
(D) Conservation of linear momentum	(B) Magnetic disturbances in the	
Who of the following recognized that large	(C)Depletion of ozone layer in th	
quantity of energy is released as a result of	( <b>D</b> ) Equal heating of different par	ts of the
the fusion of hydrogen nuclei to form	atmosphere	
deuterium?	6. Metals are good conductors	of electricity
(A) Enrico Fermi	because	
(B) Glenn Seaborg	(A) They contain free electrons	
(C) Hans Bethe	(B) The atoms are lightly packed	
(D) Werner Heisenberg	(C) They have high melting poin	t
Aviation fuel for Jet aero planes consists of	( <b>D</b> ) All of the above	
purified	7. Pick out the scalar quantity	
(A) Petrol (B) Kerosene	(A) Force (B) Pressi	
(C) Gasoline (D) Diesel	(C) Velocity (D) Accele	
Stars twinkle because	3. out of the following, which is n	ot emitted by
(A) The intensity of light emitted by them	radioactive substance?	
changes with time	(A) Electrons	
(B) The distance of the stars from the earth	(B) Electromagnetic radiations	
changes with time	(C) Alpha particles	
(C) The refractive index of the different layers	(D) Neutrons	
of the earth's atmosphere changes	<b>9.</b> Lux is the SI unit of	
continuously, consequently the position of the	(A) Intensity of illumination	
image of a start changes with time	(B) luminous efficiency	
(D) The light from the star is scattered by the	(C) luminous flux	
dust particles and air molecules in the earth's	(D) luminous intensity	
atmosphere	00. Point A is at a lower electrical	="
Which one of the following common devices	point B. An electron between the	m on the line
works on the basis of the principle of mutual	joining them will	
induction?	(A) Move towards A	
(A) Tube light (B) Transformer	(B) Move towards B	ı
(C) Photodiode (D) Led	(C) Move at right angles to the	line joining A
Intensity of sound at a point is its	and B	
distance from the source.	(D) Remain at rest	
(A) Directly proportional to	<b>1.</b> Consider the following statement	
(B) Inversely proportional to	<b>1.</b> The unit of angular velocity second.	s radiaris per
(C) Directly proportional to square of		he product of
	angular velocity and its radius.	1-1-0-1-01
` ,	Which of the statements given	above is/are
days used in ⊦ancy lights, generally emit	correct?	
(D) Inversely proportional to square of Light Emitting Diodes (LED), which are now a days used in Fancy lights, generally emit	Which of the statements giver	

102.	(C) Both 1 and 2 (D) Neither 1 nor 2 By the use of photovoltaic cell while	112.	What is the S.I. unit of force? (A) Kg m/sec2 (B) Kg m/sec
102.	converting solar energy which of the following	442	(C) Meter/sec (D) Kg sec/m2
	is produced? (A) Light energy (B) Electric energy	113.	A/anis used to measure the force and velocity of wind?
103.	(C) Chemical energy (D) Heat energy		<ul><li>(A) Speedometer</li><li>(B) Odometer</li><li>(C) Anemometer</li><li>(D) Hygrometer</li></ul>
103.	Hydraulic brakes used in automatic vehicles is direct virtual application of which law?	114.	(C) Anemometer (D) Hygrometer Which of the following effect cannot be
	(A) Pascal's law		produced by unbalanced force acting on a
	(B) Archemedes' principle		body?
	(C) Charles law (D) Boyle's law		<ul><li>(A) Change in speed of the body</li><li>(B) Change in shape of the body</li></ul>
104.	Which among the following is a light sensitive		(C) Change in direction of motion
	device used for converting images to their	445	(D) Change in state of rest
	digital form? (A) Joystick (B) Monitor	115.	If we release a magnet held in our hands, it falls to the ground. The force which makes the
	(C) Scanner (D) ROM		magnet fall down is example of
105.	In old age people use glasses to read,		(A) Balance force
	because  1. The long of their eyes becomes week		(B) Unbalance force
	<ol> <li>The lens of their eyes becomes weak</li> <li>The ability to combine them ends</li> </ol>		(C) Electrostatic force (D) Van der wall force
	3. Magnification capability of their eyes lens	116.	A fielder pulls his hand backward after
	ends		catching a cricket ball. This enables the fielder
	Which of the statements given above is/are correct?		to (A) Extra-large force on the ball
	<b>(A)</b> Only 2 <b>(B)</b> 1 and 2 only		(B) Reduce the force exerted by the ball
400	(C) 1 and 3 only (D) 1, 2 and 3		(C) Increase the rate of change of momentum
106.	When an object is kept between two parallel plane mirrors then what is the number of	117.	(D) Keep the ball in hands firmly Red light is used for signal because it
	images formed?		has
	(A) 1 (B) 2		(A) Long wavelength
107.	(C) 4 (D) Infinite Who among the following first used and when		(B) High Intensity (C) High Frequency
107.	the term Nanotechnology?		(D) Low refraction in the medium
	(A) Richard Feynman, 1959	118.	The sky appears blue because of -
	(B) Norio Taniguichi, 1974 (C) Erie Drexler, 1986		<ul><li>(A) Atmospheric water vapour</li><li>(B) Scattering of light</li></ul>
	(D) Sumiolima, 1991		(C) Reflection on sea water
108.	Which of the following is not a web browser?		(D) Emission of blue wavelength by the Sun
	(A) Opera (B) Google Apps	119.	Stars appear twinkling because of of
109.	(C) Vivaldi (D) Mozilla Firefox DuckDuckGo is a-		light. (A) Reflection (B) Refraction
	(A) Search engine (B) Web browser		(C) Dispersion (D) Scattering
440	(C) Virus (D) News web site	120.	
110.	Heat given to a body which raises its temperature 1 degree Celsius is known as-		<ul><li>(A) Dispersion of light</li><li>(B) Diffraction of light</li></ul>
	(A) Water equivalent		(C) Total internal reflection
	(B) Thermal Capacity	404	(D) Interference of light
	<ul><li>(C) Specific Heat</li><li>(D) Temperature gradient</li></ul>	121.	Which one of the following instruments is used to study dispersion of light?
111.	Which of the following laws was formulated		(A) Actinometer (B) Cathetometer
	was Nernst?		(C) Spectrometer (D) Densitometer
	<ul><li>(A) First law of thermodynamics</li><li>(B) Second law of thermodynamics</li></ul>	122.	Find the acceleration (in m/s2) of a body which accelerates from 15 m/s to 40 m/s in 2
	(C) Third law of thermodynamics		seconds.
	,		(A) 12.5 (B) 27.5

	<b>(C)</b> 25.5 <b>(D)</b> 55.5		(D) Change in state of rest
123.	The gravitational force of attraction between	132.	If we release a magnet held in our hands, it
	two bodies is the distance		falls to the ground. The force which makes the
	between the two bodies.		magnet fall down is example of
	(A) Inversely proportional to the		(A) Balance force (B) Unbalance force
	(B) Directly proportional to the square of		(C) Electrostatic force(D) Van der wall force
	(C) Inversely proportional to the square of	133.	A fielder pulls his hand backward after
	(D) Directly proportional to the		catching a cricket ball. This enables the fielder
124.	During cold weather, touch the iron cube and		to
	the wooden cube in the morning, then the iron		(A) Extra large force on the ball
	cube is colder because-		(B) Reduce the force exerted by the ball
	(A) The temperature of the iron cube is less		(C) Increase the rate of change of momentum
	than the wood cube.		(D) Keep the ball in hands firmly
	(B) Iron is a good conductor of heat than	134.	Red light is used for signal because it
	wood cube.	104.	has .
	(C) Iron cube is a poor conductor of heat		(A) Long wavelength
	compared to wood cube.		(B) High Intensity
	(D) The iron cube is heavier than the wood		(C) High Frequency
	cube.		
125		125	(D) Low refraction in the medium
125.	When a glass rod is rubbed with silk then	135.	The sky appears blue because of -
	which type of charge is created on it?		(A) Atmospheric water vapour
	(A) Electric charge (B) Positive charge		(B) Scattering of light
426	(C) Negative charge (D) None of these		(C) Reflection on sea water
126.	is the transfer of heat due to	420	(D) Emission of blue wavelength by the Sun
	bulk movement of molecules	136.	Stars appear twinkling because of of
	within fluids such as gases and liquids,		light.
	including molten rock?		(A) Reflection (B) Refraction
	(A) Conduction only	407	(C) Dispersion (D) Scattering
	(B) Convection only	137.	Optical Fiber work on the principle of -
	(C) Radiation		(A) Dispersion of light
407	(D) Both conduction and convection		(B) Diffraction of light
127.	Heat given to a body which raises its		(C) Total internal reflection
	temperature 1degree Celsius is known as-	400	(D) Interference of light
	(A) Water equivalent	138.	Which one of the following instrument is used
	(B) Thermal Capacity		to study dispersion of light?
	(C) Specific Heat		(A) Actinometer (B) Cathetometer
400	(D)Temperature gradient	400	(C) Spectrometer (D) Densitometer
128.	Which of the following laws was formulated	139.	Find the acceleration (in m/s2) of a body
	was Nernst?		which accelerates from 15 m/s to 40 m/s in 2
	(A) First law of thermodynamics		seconds.
	(B) Second law of thermodynamics		(A) 12.5 (B) 27.5
	(C) Third law of thermodynamics		(C) 25.5 (D) 55.5
	(D) All of the above	140.	The gravitational force of attraction between
129.	What is the S.I. unit of force?		two bodies isthe distance
	(A) Kg m/sec2 (B) Kg m/sec		between the two bodies.
	(C) Meter/sec (D) Kg sec/m2		(A) Inversely proportional to the
130.	A/anis used to measure the		<b>(B)</b> Directly proportional to the square of
	force and velocity of wind?		(C) Inversely proportional to the square of
	(A) Speedometer (B) Odometer		<b>(D)</b> Directly proportional to the
	(C) Anemometer (D) Hygrometer	141.	During cold weather, touch the iron cube and
131.	Which of the following effect cannot be		the wooden cube in the morning, then the iron
	produced by unbalanced force acting on a		cube is colder because-
	body?		(A) The temperature of the iron cube is less
	(A) Change in speed of the body		than the wood cube.
	(B) Change in shape of the body		(B) Iron is a good conductor of heat than
	(C) Change in direction of motion		wood cube.

- **(C)** Iron cube is a poor conductor of heat compared to wood cube.
- (D) The iron cube is heavier than the wood cube.
- **142.** When a body motion on a circular path, then one force works towards the center of the path, which is called?
  - (A) Centripetal force (B) Centrifugal force
  - (C) Both
- (D) None
- **143.** Select the correct match using the code given below:

## Column-I A. Elastic B. Plastic C. Ductile D. Perfectly elastic A B C D Column-II 1. Iron 2.Steel 3. Quartz 4. Paraffin wax

- (A) 1234 (B) 2143
- (C) 2413
- **(D)** 2 1 3 4
- **144.** What is the unit of electric current?
  - (A) Meter (C) Kelvin
- (B) Ampere (D) Candela
- **145.** Which of the following is not matched correctly?
  - (A) Amount of substance mole
     (B) Luminous intensity candela
     (C) Mass kilogram
     (D) Thermodynamic temperature second

- **146.** Which of the following is the slowest process of heat transfer?
  - (A) Conduction
- (B) Convection
- (C) Radiation
- (D) Insolation
- **147.** FM radio broadcasts are a popular mode of communication today. What does FM stands for?
  - (A) Frequency Modulation
  - (B) Flexible Module
  - (C) Frequency mixing
  - (D) Flexible Multidimensional
  - **148.** India entered into space age by launching the satellite Aryabhata in the year?
    - **(A)** 1932
- **(B)** 1965
- **(C)** 1975
- **(D)** 1990
- **149.** Which physical amount is obtained from the ratio of momentum and the velocity?
  - (A) Velocity
- (B) Acceleration
- (C) Mass
- (D) Angular velocity
- **150.** Rocket works on which principle?
  - (A) Energy Conservation
  - (B) Bernoulli theorem
  - (C) Conservation of Momentum
  - (D) Law of thermodynamics

## **Answer Key**

1.(D)	2.(B)	3.(D)	4.(A)	5.(C)	6.(A)	7.(A)	8.(D)	9.(B)	10.(A)
11.(C)	12.(B)	13.(A)	14.(C)	15.(D)	16.(A)	17.(D)	18.(B)	19.(A)	20.(D)
21.(C)	22.(B)	23.(A)	24.(C)	25.(A)	26.(B)	27.(D)	28.(B)	29.(C)	30.(C)
31.(A)	32.(A)	33.(A)	34.(A)	35.(A)	36.(C)	37.(C)	38.(B)	39.(A)	40.(B)
41.(B)	42.(D)	43.(B)	44.(D)	45.(B)	46.(A)	47.(A)	48.(A)	49.(D)	50.(C)
51.(B)	52.(A)	53.(C)	54.(C)	55.(B)	56.(B)	57.(A)	58.(D)	59.(C)	60.(D)
61.(D)	62.(C)	63.(A)	64.(A)	65.(A)	66.(C)	67.(D)	68.(B)	69.(D)	70.(C)
71.(C)	72.(C)	73.(D)	74.(A)	75.(A)	76.(A)	77.(B)	78.(D)	79.(A)	80.(A)
81.(A)	82.(A)	83.(C)	84.(A)	85.(D)	86.(A)	87.(D)	88.(A)	89.(B)	90.(B)
91.(B)	92.(B)	93.(D)	94.(B)	95.(A)	96.(A)	97.(B)	98.(D)	99.(A)	100.(B)
101.(C)	102.(B)	103.(A)	104.(C)	105.(A)	106.(D)	107.(B)	108.(B)	109.(A)	110.(C)
111.(C)	112.(A)	113.(C)	114.(B)	115.(A)	116.(B)	117.(A)	118.(B)	119.(D)	120.(C)
121.(C)	122.(A)	123.(C)	124.(B)	125.(B)	126.(B)	127.(C)	128.(C)	129.(A)	130.(C)
131.(B)	132.(A)	133.(B)	134.(A)	135.(B)	136.(A)	137.(C)	138.(C)	139.(A)	140.(C)
141.(B)	142.(A)	143.(C)	144.(B)	145.(D)	146.(C)	147.(A)	148.(C)	149.(C)	150.(A)



