PPSC Physics Chapter 1 MECHANICS

Sr	Questions	Answers Choice
1	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
2	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
3	Simple harmonic motion is a type of	A. rectilinear motion B. Circular motion C. Rotational motion D. Zig Zag motion
4	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
5	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
6	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
7	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
8	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
9	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
10	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
11	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
12	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
13	In rotational motion, the analogue of force is.	A. moment of inertia B. Moment of force C. Torque D. Rotational inertia
14	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
15	The SI unit of torque is	A. kg ms-2 B. kg m2s-2 C. kg ms-1 D. kg m2 s-3
16	For maximum range angle of projection of the projectile should be	A. 45 ^o B. 90^o C. 120 ^o D. 180 ^o
17	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
18	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
19	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
20	Angular simple harmonic motion is.	A. Periodic rectilinear motion B. Independent of any applied torque C. Periodic rotational motion D. Never defined
21	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
22	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
23	When the velocity of body is doubled which one is doubled too.	A. K.E. B. P.E C. Momentum D. Acceleration
24	While passing through the atmosphere total energy is reduced due to.	A. scattering B. Absorption C. Reflection D. All of these
25	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
26	A geostationary satellite covers	A. 100 ^o of longitude B. 120 ^o of longitude C. 130 ^o longitude D. 140 ^o of longitude
27	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
28	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
29	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
		A. Both is velocity and acceleration are zero

30	A ball is thrown straight up when the ball reaches the highest point.	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.
31	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.
32	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
33	Angular moment is conserved due to	A. Variable force B. Constant force C. Central force D. Uniform force
34	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
35	If mass attached to a spring increases then its time period.	A. Increases B. Decreases C. Remains constant D. Decreases slightly
36	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
37	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
38	What is the number of degree of freedom of an oscillating simple gravity pendulum	A. 1 B. 2 C. 3 D. 4
39	The pascal is not the SI derived unit of.	A. Pressure B. Stress C. work D. Tensile strength
40	The path of projectile is maximum at	A. Point of lauch B. Highest point C. Point of landing D. Both a and c
41	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
42	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
43	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
44	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
45	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
46	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
47	Which of the following quantities associated with SHM does not vary periodically.	A. velocity B. Displacement C. Acceleration D. Total energy
48	The SI unit of spring constant is identical with that of.	A. Force B. Pressure C. Surface tension D. Loudness
49	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
50	The dimensions of moment of inertia are	A. [ML2] B. [MLT-1] C. [ML2T-1] D. [ML-1T-2]
51	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
52	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
53	The equation of parabola is.	A. y= bx - ax2 B. x = by - ay2 C. y = ax + bx2 D. x = a -by2
54	An object falls freely under gravity the vertical equilibrium of the body inside is	A. Stable B. Unstable C. Neutral D. Unknown
55	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
56	The reverse process of vector addition is called	A. Negative of a vector B. Subtraction of vectors C. Resolution of vectors D. Multiplication of vector
57	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
58	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
59	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
60	A physical quantity not directly involved in rotating motion is.	A. Moment of inertia B. Mass C. Angular velocity D. Torque
61	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
62	The product of two non zero numbers is.	A. A vector quantity B. A unit vector C. Always zero D. Never equal to zero
63	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

64	What is the period of geostationary satellite.	A. 6 hours B. 12 hours C. 18 hours D. 24 hours
65	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
66	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
67	Which of the following is not SI base unit.	A. kilogram B. Ampere C. Coulomb D. Mole
68	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
69	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
70	Light year is a unit of	A. Light B. Velocity C. Time D. Distance
71	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
72	A body in equilibrium may not have	A. Velocity B. Momentum C. Acceleration D. K.E
73	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
74	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
75	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
76	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
77	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
78	The SI unit of impulse is.	A. N m B. N s C. Kg ms -1 D. Both b and c
79	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
80	Which of the following is dimensionless.	A. Strain B. Stress C. Pressure D. Volume
81	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. Velocitv of the obiect

		D. Acceleration of the object
82	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
83	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
84	Conventionally antilock wise torque is taken as.	A. Zero B. Positive C. Infinity D. Negative
85	When two vectors have opposite directions we say that they are	A. Parallel B. Antiparallel C. Perpendicular D. Out of phase
86	A body is equilibrium may not have	A. Momentum B. Velocity C. acceleration D. K.E.
87	Restoring force in SHM is.	A. Centripetal B. Frictional C. Conservative D. Non conservative
88	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
89	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
90	Planets move around the sun due to.	A. Centrifugal force B. Centripetal force C. Gravitational pull between them D. Frictional force between them
91	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
92	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
93	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
94	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
95	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
96	Which of the following quantities is zero about the centre of mass of body.	A. Mass B. acceleration C. Moment D. Angular acceleration
97	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
98	In any collision between two bodies there need nor the conservation of	A. Linear momentum B. Angular momentum C. Total energy D. Kinetic energy

99	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
100	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
101	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
102	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
103	Which of the following is a non conservative force.	A. Gravitational force B. Air resistance C. Elastic force D. Tension in a string
104	The dimensional formula for torque is identical to.	A. Kinetic energy B. Pressure energy C. Moment of force D. All of the above
105	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
106	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
107	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
108	The equal and opposite forces acting on a body form	A. Angular momentum B. Linear momentum C. Torque D. Couple
109	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
110	The number of 0.0001 is abbreviated correctly by	A. 1 x 10⁴ B. 10⁻³ C. 10⁻⁴ D. 0.1 x 10⁴
111	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
112	In an Isolated system , total energy of the vibrating's mass and spring is	A. Low B. High C. Constant D. Variable
113	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
114	MT-2 is the dimensionless formula of.	A. Moment of iniertia B. Viscosity C. surface tension D. Angular acceleration
115	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

116	The SI unit of angular velocity is.	A. cm s-1 B. rad s-2 C. cm s-2 D. rad s-1
117	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
118	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
119	What are the dimensions of coefficient of velocity of	A. [MLT-1] B. [ML-1T-1] C. [ML-2T-1] D. [MLT-2]
120	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
121	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
122	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
123	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
124	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
125	If a car is to gain momentum it must.	A. Lose inertia B. accelerate C. Move rapidly D. Lose weight
126	The reluctance of a body to start moving is called.	A. Mass B. Weight C. Force D. Inertia
127	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
128	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
129	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
130	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
131	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
132	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

	could not occur.	increases D. The mass of the body decreases
133	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.
134	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
135	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
136	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
137	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
138	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
139	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
140	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
141	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
142	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
143	The moment of linear momentum is equal to	A. Implies B. Torque C. Angular momentum D. Couple
144	Supplementary units radian and steradian were established for	A. Density B. Viscosity C. electric intensity D. Geometrical quantities
145	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
146	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
147	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
148	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
		A. Above the earth's surface

149	The value of 'g' is maximum	B. Below the earth's surface C. At the earth's surface D. At the centre of earth
150	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
151	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
152	Solar cells are thin wafers made from	A. Uranium B. Nickel C. Silicon D. Cadmium
153	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
154	The moment of linear momentum is called.	A. Torque B. Couple C. Impulse D. Angular momentum
155	Candela is the SI base unit of.	A. illuminance B. Luminous flux C. Luminous intensity D. Radiant energy
156	Solar cells are thin sand whishes of	A. good conductors B. Bad conductors C. Semi conductor D. Insulators
157	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
158	The product of force and duration of impact is called.	A. Density B. Momentum C. Torque D. Impulse
159	Which of the following SI units is not named after any physicist.	A. Hertz B. Joule C. Volt D. Candala
160	Restoring force in the SHM is	A. Centripetal B. Frictional C. Conservative D. Non conservative
161	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
162	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
163	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
164	The unit of energy are the same as that of	A. Force B. Power C. Work D. Efficiency
165	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
166	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
167	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
168	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
169	The diver spins faster when moment of inertia becomes	A. Smaller B. Greater C. Double D. zero
170	The time period of a simple pendulum is independent of its.	A. Length B. Mass C. Acceleration due to gravity D. Restoring force
171	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
172	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
173	The wave form of SHM is a	A. Sine wave B. Cosine wave C. Square wave D. Electromagnetic wave
174	Which vector gives the displacement from one point to another in space.	A. Position vector B. Unit vector C. Null vector D. Distance vector
175	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
176	The curve between the acceleration and velocity of a body in SHM is a	A. Circle B. Ellipse C. Square D. Parabola
177	The magnitude of the instantaneous velocity is called the.	A. _{Displacement} B. Speed C. Acceleration D. Length
178	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
179	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
180	Angular acceleration is produced due to	A. Centripetal force B. Torque C. Force D. Mass
181	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
182	The minimum velocity needed to put a satellite into the orbit	A. Terminal velocity B. Escape velocity C. Critical velocity D. Linear velocity
183	The SI unit of plane angle is	A. Radian B. Degree C. Steradian D. Radian per second
184	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
185	Acceleration due to gravity is not affected by which one of the following	A. Latitude B. Attitude C. Longitude D. Depth
186	Impulse is equal to.	A. F x t/2 B. \F x t /4 C. F x t D. F x t /m
187	92.65 is round off as	A. 92.6 B. 93.00 C. 92.7 D. None of these
188	The period of a geostationary satellite is.	A. 32 hours B. 72 hours C. 48 hours D. 96 hours
189	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
190	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
191	A rocket propulsion is based on the principle of.	A. Conservation of momentum B. Conservation of mass C. Conservation of energy D. Floatation
192	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
193	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
194	Which of the following will not acceleation.	A. The moon in its orbit 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
195	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
196	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
197	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
198	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

		D. Be the same before
199	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
200	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
201	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
202	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.
203	Angular frequency time period and frequency in SHM do not depend upon.	A. Mass B. Force constant C. Amplitude D. All of these
204	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
205	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
206	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
207	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
208	Rate of change of momentum is called.	A. Torque B. Force C. Impulse D. Inertia
209	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
210	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
211	Which of the following is conserved in SHM	A. K.E. B. P.E C. Total energy D. Electrical energy
212	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
213	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
214	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
215	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

		D. May or may not be inelastic
216	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
217	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
218	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
219	Length of second pendulum is	A. 98 cm B. 99 cm C. 99.2 cm D. 100 cm
220	An astronaut in an earth satellite will observe the sky as	A. Light blue B. Deep blue C. White D. Black
221	The point of which the whole weight of the body acts	A. zero point B. Centre of mass C. Centre of gravity D. Equilibrium
222	Temperature changes when two balls collide which one of the following is conserved.	A. Angular momentum B. linear momentum C. Velocity D. Kinetic energy
223	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
224	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)
225	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
226	In microwave ovens, heating is produced by the phenomena of	A. Reflection B. Refraction C. Damped oscillations D. Resonance
227	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
228	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
229	The hydrogen filled balloon possesses	A. P.E B. K.E C. Heat energy D. Elastic energy
230	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
231	Which of the following is not a unit of plane angle.	A. Degree B. Radian C. Gradian D. Steradian
232	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

233	When a projectile reaches the highest point the vertical component of velocity becoems.	A. Small B. Vi cos thetha C. Zero D. Maximum
234	The dimensions of universal gravitational constant G are.	A. [MLT-2] B. [ML -2T-2] C. [M-1L2T-2] D. [ML-1T-1]
235	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
236	Which of the following is renewable source of energy.	A. Oil B. Natural gas C. Uranium D. Sunlight
237	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
238	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.
239	Original source of biomass is.	A. Stars B. Moon C. earth D. Sun
240	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
241	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
242	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
243	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
244	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
245	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
246	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
247	The SI unit of solid angle is	A. Degree B. Radian C. Steradian D. Candala
248	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

		D. 4
249	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
250	Ethanol is a replacement of	A. Gasoline oil B. Kerosene oil C. Refinery oil D. vegetable oil
251	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
252	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
253	It the force acting on a body is doubled its acceleration becomes.	A. Half B. Constant C. Double D. One fourth
254	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
255	Work has the same dimensions as that of	A. Power B. Liner momentum C. Angular momentum D. Torque
256	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
257	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
258	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
259	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
260	Kinetic and potential energies are	A. Not inter convertible B. Inter convertible C. Two forms of torque D. Not related with each other
261	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
262	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
263	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
264	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
265	When velocity of the body is doubled, which one is doubled too.	A. K.E. B. P.E C. Momentum D. Acceleration

266	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
267	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
268	If a vehicle is to gain momentum it must	A. Lose weight B. Move slowly C. Lose inertia D. Accelerate
269	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
270	In planetary motion	A. Angular speed remains constant B. Angular momentum remains constant C. Linear speed remains constant D. Linear momentum remains constant
271	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
272	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
273	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
274	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
275	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
276	The angular frequency time period and frequency in SHM not depend upon.	A. Mass B. Force constant C. Amplitude D. Restoring force
277	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
278	If the presence of air friction, the path of a projectile appears as.	A. Straight line B. Parabola C. Hyperbola D. zig zag
279	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
280	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
281	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
		A. Under the influence of an elastic restoring force B. That repeats it self in equal

282	Periodic motion is a motion.	B. That repeats it self in equal intervals of time C. Back and forth over the same path D. With constant acceleration
283	Which of the following quantity is zero about the centre of mass of baody.	A. Mass B. Acceleration C. Moment D. Angular momentum
284	When damping is small amplitude of vibrational resonance will be	A. small B. Large C. Infinite D. Un changed
285	The working of the rocket is based on the principle of.	A. Electromagnetism B. Conservation of momentum C. Floatation D. Hydraulic system
286	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
287	The mass that appears in Newton's second law is known as.	A. Rest mass B. Gravitational mass C. Inertial mass D. Weight
288	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
289	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
290	A negative acceleration does not necessaryimply.	A. Decreasing speed B. An increasing distance C. An increasing speed D. A decreasing distance
291	The graph between restoring force and time in SHM is a	A. Straight line B. Parabola C. Sine wave D. Circle
292	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
293	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
294	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
295	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
296	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
297	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.

298	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
299	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
300	The term radius of gyration relates to.	A. Moment of force B. Moment of inertia C. Law of gravitation D. simple harmonic motion
301	Which vector gives the displacement from one point another in space.	A. Null vector B. Position vector C. Unit vector D. Distance vector
302	The path of a projectile is a	A. Straight line B. Circle C. Ellipse D. Parabola
303	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
304	The dimensions of work are	A. [MLT-2] B. [ML2T-2] C. [ML2T-1] D. [MLT-1]
305	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
306	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
307	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
308	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
309	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
310	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
311	Which of the following is non renewable source of energy.	A. Wind B. Coal C. Hydroelectric D. Biomass
312	The dimensions of torque are.	A. [MLT-2] B. [ML-1T-1] C. [ML2T-2] D. [ML-2]
313	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
		A. Diagonal

314	Simple harmonic motion may be assumed as a projectio of uniform circular motion along a	A. Diagonal B. hypotenuse C. Diameter D. Radius
315	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
316	Which of the following is SI base unit for temperature.	A. Celsius B. Kelvin C. Fahrenheit D. Rankine
317	A body at rest may have	A. Speed B. Momentum C. Acceleration D. Energy
318	The value of 'g' is affected by earth's	A. Non spherical shape B. Daily motion C. Volume D. Density
319	In simple harmonic motion we have the conservation of.	A. K.E. B. P.E C. Total energy D. Electrical energy
320	The SI unit of density is.	A. kg m2 B. kg m-2 C. kg m-3 D. kg m2 s-2
321	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
322	A physical quantity which produces rotation in a body is called.	A. Force B. Torque C. Momentum D. accelerate
323	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
324	Newton's first law of motion provides the definition of.	A. Distance B. Force C. Vector D. Acceleration
325	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
326	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
327	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
328	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
329	Frequency of second pendulum is.	A. 0.5 Hz B. 1.0 Hz C. 1.5 Hz D. 2.0 Hz
330	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.
331	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

		C. Young's modulus x area D. Weight
332	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
333	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
334	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
335	Inertial mass and gravitational mass are	A. Opposite B. Proportional C. Weights D. Inversely proportional
336	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
337	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
338	The process where by energy is dissipated from the oscillating system is called.	A. Resonance B. Damping C. Forced oscillation D. Free oscillation
339	Simple harmonic motion may be assumed as a projection of uniform circular motion along a	A. Diagonal B. Hypotenuse C. Radius D. Diameter
340	By decreasing angle between two vectors their cross product.	A. Increases B. Decreases C. Remains the same D. Vanishes
341	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
342	One radian is equl to	A. 57.3 ^o B. 67.3 ^o C. 60 ^o D. 87.3 ^o
343	Which one of the following is not a dimensionless quantity.	A. Radian B. pi C. Decibel D. Force
344	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
345	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
346	tuning a radio set is an example of.	A. Musical resonance B. Electrical resonance C. Mechanical resonance D. Damping
347	Angular momentum of a body under a central force is	A. Zero B. Maximum C. Minimum D. Constant
348	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

349	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
350	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
351	The dimension of momentum is.	A. [MLT-1] B. [ML2T-2] C. [ML3T-2] D. [MLT-1]
352	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
353	A force of 20 N is applied on an elastic spring if the extension produced in the springs to cm, the value of spring constant.	A. 2 Nm-1 B. 20 N m-1 C. 200 N m-1 D. 2,000 N m-1
354	The SI unit of torque.	A. kg m2 B. kg ms-2 C. kg m2 s-2 D. kg ms -1
355	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
356	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
357	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
358	When net torque acting on a system is zero which of the following will be constant.	A. Force B. Angular momentum C. Linear momentum D. Linear impulse
359	Oscillatory motion is always under	A. An applied force B. Restoring force and inertia C. A periodic force D. A gravitational force
360	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
361	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.
362	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
363	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
364	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
		A. [MLT-2]

365	The dimensions of force are.	B. [MLT-1] C. [M,-1T-2] D. [M-2T-2]
366	Which of the following is a conserfative force.	A. Electric force B. Frictional force C. Normal force D. propulsion force of a rocket
367	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
368	The ratio of inertial mass to gravitational mass is.	A. 1 B. 0.5 C. 2 D. 3