BC200200144: ABDUL MAJID

Time Left 84 sec(s)

PHY101 Grand Quiz

Quiz Start Time: 05:36 PM, 30 June 2021

Question # 1 of 30 (Start time: 05:36:40 PM, 30 June 2021)

Total Marks: 1

In simple harmonic motion, the magnitude of the acceleration is

Select the correct option

- proportional to the displacement
- inversely proportional to the displacement
- greatest when the velocity is greatest
- constant

BC200200144: ABDUL MAJID

PHY101:Grand Quiz

Question # 4 of 30 (Start time: 05:37:40 PM, 30 June 2021)

The process by which the energy is dissipated from an oscillating system called:

Select the correct option

- Damping
- Hormonic oscillations
- Forced oscillations
- Resonance

BC200200144: ABDUL MAJID

Time Left 84 sec(s)

PHY101:Grand Quiz

Quiz Start Time: 05:36 PM, 30 June 2021

Question # 6 of 30 (Start time: 05:38:38 PM, 30 June 2021)

Total Marks: 1

Work has dimensions like:

Select the correct option

- Momentum
- Torque
- Power
- Velocity

BC200200144: ABDUL MAJID

Time Left 80 sec(s)

PHY101 Grand Quiz

Quiz Start Time: 05:36 PM, 30 June 2021

Question # 7 of 30 (Start time: 05:39:18 PM, 30 June 2021)

Total Marks: 1

If a simple pendulum oscillates with an amplitude 50 mm and time period 2s, then its maximum velocity is

Select the correct option

- 0.15 m/s
- 0.1 m/s
- 0.8 m/s
- 0.16 m/s

BC200200144: ABDUL MAJID

Time Left 80 sec(s)

PHY101 Grand Quiz

Quiz Start Time: 05:36 PM, 30 June 2021

Question # 10 of 30 (Start time: 05:41:14 PM, 30 June 2021)

Total Marks: 1

Let F1 be the magnitude of the gravitational force exerted on the Sun by Earth and F2 be the magnitude of the force exerted on Earth by the Sun. Then:

Select the correct option

- ○ F1 is equal to F2
- ○ F1 is much greater than F2
- ○ F1 is slightly greater than F2
- ○ F1 is slightly less than F2

BC200200144: ABDUL MAJID

Time Left 66 sec(s)

PHY101:Grand Quiz

Quiz Start Time: 05:36 PM, 30 June 2021

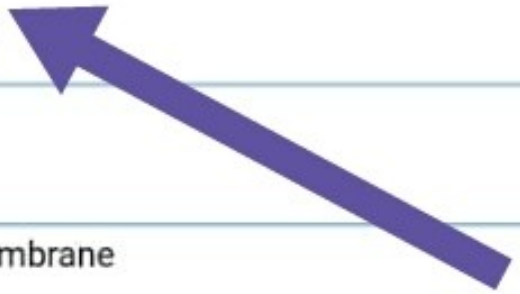
Question # 11 of 30 (Start time: 05:41:55 PM, 30 June 2021)

Total Marks: 1

The vibrations or the pressure variations inside the inner ear are converted into electrical signals by the_____.

Select the correct option

- cochlea
- pinna
- tympanic membrane
- anvil



PHY101:Grand Quiz

Question # 16 of 30 (Start time: 05:45:30 PM, 30 June 2021)

Distance covered during one vibration of an oscillating body in terms of amplitude A:

Select the correct option

- A/2
- 2A
- 4A
- A

BC200200144: ABDUL MAJID

Time Left 76 sec(s)

PHY101:Grand Quiz

Quiz Start Time: 05:36 PM, 30 June 2021

Question # 9 of 30 (Start time: 05:40:15 PM, 30 June 2021)

Total Marks: 1

The law of conservation of momentum applies to a system of colliding objects only if:

Select the correct option

- there is no change in kinetic energy of the system
- the coefficient of restitution is one
- the coefficient of restitution is zero
- the net external impulse is zero

BC200200144: ABDUL MAJID

PHY101:Grand Quiz

Question # 17 of 30 (Start time: 05:46:17 PM, 30 June 2021)

We will apply the condition of equilibrium to situations in which all forces are:

Select the correct option

- Downward
- Upward
- Coplanar
- Straight line

BC200200144: ABDUL MAJID

PHY101:Grand Quiz

Question # 20 of 30 (Start time: 05:47:27 PM, 30 June 2021)

If a gymnasium sitting on a stool with his arms stretched lowers his arms:

Select the correct option

- Become zero
- The angular speed decreases
- The angular speed increases
- Remain same

BC200200144: ABDUL MAJID

Time Left 84 sec(s)

PHY101:Grand Quiz

Quiz Start Time: 05:36 PM, 30 June 2021

Question # 24 of 30 (Start time: 05:49:48 PM, 30 June 2021)

Total Marks: 1

For an ideal fluid flowing through a horizontal pipe, Bernoulli's equation states that the sum of the pressure and energy per unit volume along the pipe does which of the following? (Assume measurements are taken along the pipe in the direction of fluid flow.)

Select the correct option

- ○ decreases as the pipe diameter increases
- ○ remains constant as the pipe diameter increases
- ○ increases, then decreases as the pipe diameter increases
- ○ increases as the pipe diameter increases

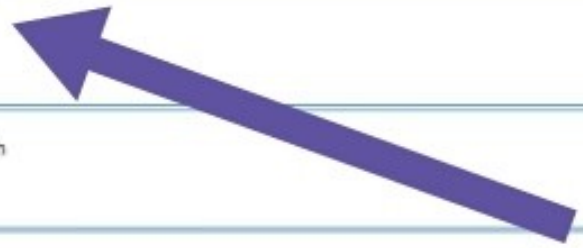
PHY101:Grand Quiz

Question # 26 of 30 (Start time: 05:52:01 PM, 30 June 2021)

Stars moving towards the earth shows:

Select the correct option

- No shift
- Red shift
- Longer wavelength
- Blue shift



BC200200144: ABDUL MAJID

Time Left 78 sec(s)

PHY101:Grand Quiz

Quiz Start Time: 05:36 PM, 30 June 2021

Question # 27 of 30 (Start time: 05:52:56 PM, 30 June 2021)

Total Marks: 1

The torque about any two points has the same value when the body is in

Select the correct option

- dynamic equilibrium
- neutral equilibrium
- static equilibrium
- translational equilibrium

BC200200144: ABDUL MAJID

Time Left 83 sec(s)

PHY101:Grand Quiz

Quiz Start Time: 05:36 PM, 30 June 2021

Question # 30 of 30 (Start time: 05:54:11 PM, 30 June 2021)

Total Marks: 1

Force is a:

Select the correct option

- Scalar quantity
- Base quantity
- Universal quantity
- Derived quantity

Question # 30 of 30 (Start time: 04:35:21 PM, 30 June 2021)

A net torque applied to a rigid object always tends to produce:

Select the correct option

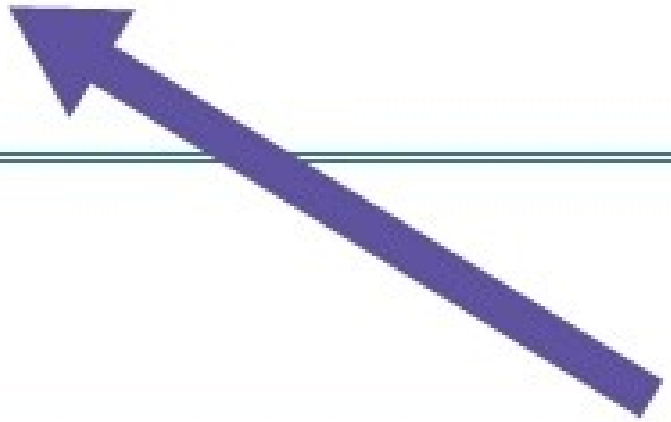
○	rotational equilibrium
○	angular acceleration
○	linear acceleration
○	rotational inertia

Question # 29 of 30 (Start time: 04:35:06 PM, 30 June 2021)

6 joule of work done in 3 seconds then power is:

Select the correct option

○	2 watt
○	6 watt
○	3 watt
○	18 watt



Question # 28 of 30 (Start time: 04:34:51 PM, 30 June 2021) **Total Marks: 1**

A certain wire stretches 0.90 cm when outward forces with magnitude F are applied to each end. The same forces are applied to a wire of the same material but with three times the diameter and three times the length. The second wire stretches:

Select the correct option

○	0.10 cm
○	0.30 cm
○	2.7 cm
○	0.90 cm

Question # 27 of 30 (Start time: 04:34:28 PM, 30 June 2021) **Total Marks:** 1

An ultrasonic wave is sent from a ship towards the bottom of the sea. It is found that the time interval between the sending and receiving of the wave is 1.6 s. What is the depth of the sea, if the velocity of sound in the seawater is 1400 m/s?

Select the correct option

○	1120 m
○	112 m
○	1400 m
○	560 m

Question # 26 of 30 (Start time: 04:34:11 PM, 30 June 2021)

Swimming becomes possible because of:

Select the correct option

○	Second law of motion
○	Third law of motion
○	Law of torque
○	First law of motion

Question # 25 of 30 (Start time: 04:33:49 PM, 30 June 2021) **Tot**

Which of the following statements are TRUE of sound waves? Identify all that apply.

Select the correct option

○	Sound can travel through a vacuum
○	A sound wave is a transverse wave
○	To hear the sound of a tuning fork, the tines of the fork must move air from the fork to one's ear
○	A sound wave is a mechanical wave

Question # 24 of 30 (Start time: 04:33:31 PM, 30 June 2021)

The velocity time graph is parallel to time axis the acceleration of moving body is:

Select the correct option

○	Maximum
○	Negative
○	Zero
○	Positive

Question # 23 of 30 (Start time: 04:33:09 PM, 30 June 2021) **Total Marks:**

Two sound waves are traveling through a container of unknown gas. Wave A has a wavelength of 1.2 m. Wave B has a wavelength of 3.6 m. The frequency of wave B must be _____ the frequency of wave A.

Select the correct option

○	Three times larger than
○	One-ninth
○	The same as
○	One-third

Question # 22 of 30 (Start time: 04:33:02 PM, 30 June 2021) **Total**

Because a buoyant force acts in the opposite direction of gravity,

Select the correct option

○	objects submerged in water have a net force smaller than their weight.
○	objects submerged in water have a net force larger than their weight.
○	objects submerged in water appear to weigh more than they do in air.
○	objects submerged in water have a net force equal to their weight.

Question # 21 of 30 (Start time: 04:32:45 PM, 30 June 2021) **Total Marks:** 1

The flow rate of blood through the average human aorta is about 9.0 ? 101 cm3/s. If the aorta has a radius of 1.0 cm, what is the velocity of the blood flow?

Select the correct option

○	37 cm/s
○	14 cm/s
○	32 cm/s
○	29 cm/s

Question # 20 of 30 (Start time: 04:32:25 PM, 30 June 2021)

Let M denote the mass of Earth and let R denote its radius. The ratio g/G at Earth's surface is:

Select the correct option

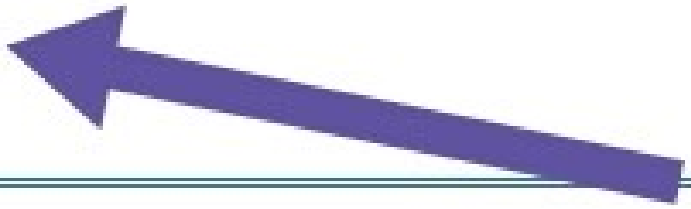
○	MR^2
○	M/R
○	M/R^2
○	R^2/M

Question # 19 of 30 (Start time: 04:32:08 PM, 30 June 2021)

Stars moving towards the earth shows:

Select the correct option

○	No shift
○	Blue shift
○	Red shift
○	Longer wavelength



Question # 16 of 30 (Start time: 04:31:03 PM, 30 June 2021)

Suppose no reaction force exits then which of the following case/s will occur?

i. We cannot swim.
ii. We cannot jump.
iii. We cannot walk.

Select the correct option

○	(iii) only
○	(ii) only
○	(i), (ii) and (iii)
○	(i) only

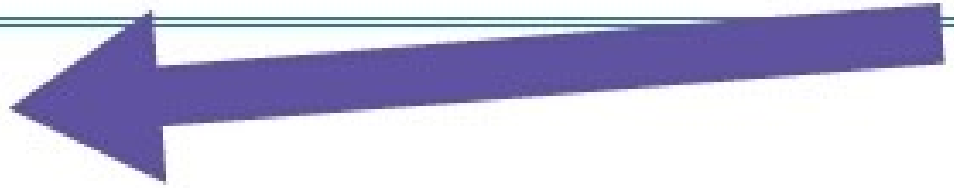
Question # 17 of 30 (Start time: 04:31:17 PM, 30 June 2021) **Total Marks:**

If the slope of velocity-time graph is a straight line such that tan θ = 1 at each point, then graph represents:

Select the correct option

Reload Math Equations

- Variable acceleration
- Uniform velocity
- Variable velocity
- Uniform acceleration



Question # 18 of 30 (Start time: 04:31:47 PM, 30 June 2021) **Total Marks:** 1

When number of bodies are such that they can exert force upon one another and no external agency exerts a force on them, they are said to form:

Select the correct option

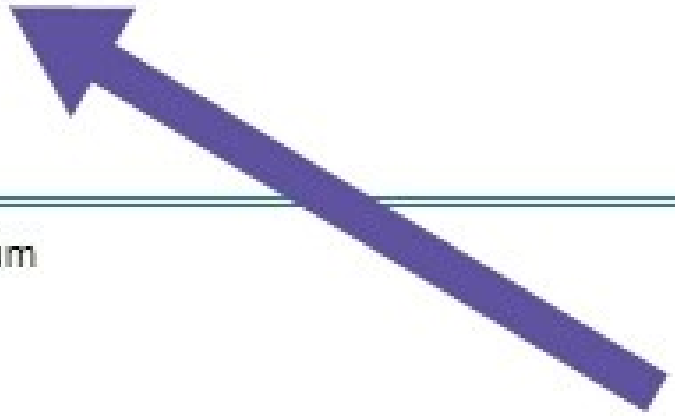
○	An inertial frame of reference
○	An isolated system
○	Non isolated system
○	Non-inertial frame of reference

Question # 15 of 30 (Start time: 04:30:41 PM, 30 June 2021)

In .....object returns to its original position if displaced slightly

Select the correct option

○	rotational equilibrium
○	stable equilibrium
○	unstable equilibrium
○	dynamic equilibrium



Question # 14 of 30 (Start time: 04:29:34 PM, 30 June 2021)

Which of the quantity is dimensionless?

Select the correct option

○	Modulus of elasticity
○	Stress
○	Entropy
○	Strain

Question # 13 of 30 (Start time: 04:29:17 PM, 30 June 2021) **Total Mark**

If a simple pendulum oscillates with an amplitude 50 mm and time period 2s, then its maximum velocity is

Select the correct option

○	0.15 m/s
○	0.8 m/s
○	0.1 m/s
○	0.16 m/s

Question # 10 of 30 (Start time: 04:28:17 PM, 30 June 2021)

When the velocity of an aeroplane is doubled, the momentum _____

Select the correct option

○	Remains unchanged
○	Becomes zero
○	Increases uniformly
○	Is conserved

Question # 11 of 30 (Start time: 04:28:42 PM, 30 June 2021)

What are the substances called which undergo plastic deformation until they break?

Select the correct option

Rel

○	Brittle substances
○	Amorphous substances
○	Ductile substances
○	Polymeric substances

Question # 12 of 30 (Start time: 04:28:58 PM, 30 June 2021)

The dimensional units of ratio of work and power is:

Select the correct option

○	J
○	F
○	L
○	T

Question # 9 of 30 (Start time: 04:27:58 PM, 30 June 2021)

A particle oscillating in simple harmonic motion is:

Select the correct option

○	never in equilibrium because it is in motion
○	in equilibrium at the center of its path because the acceleration is zero there
○	in equilibrium at the ends of its path because its velocity is zero there in equilibrium at the ends of its path because its velocity is zero there
○	never in equilibrium because there is always a force

Sound waves do not travel through

Select the correct option

○	solids
○	gases
○	liquids
○	vacuum

Question # 8 of 30 (Start time: 04:27:35 PM, 30 June 2021)

Light year is a unit of:

Select the correct option

- acceleration
- distance
- time
- velociy

Question # 4 of 30 (Start time: 04:25:44 PM, 30 June 2021) **Total**

When you step on the accelerator to increase the speed of your car, the force that accelerates the car is

Select the correct option

○	the force of the engine on the drive shaft
○	the normal force of the road on the tires
○	the force of friction of the road on the tires
○	the force of your foot on the accelerator

Question # 5 of 30 (Start time: 04:26:22 PM, 30 June 2021)

Which of the following statement is true?

Select the correct option

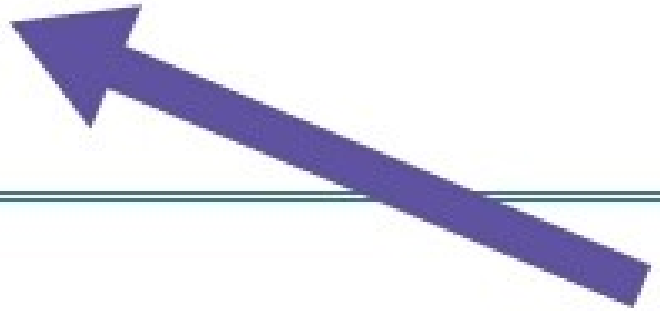
○	Heavier objects weigh more than light objects
○	Gravity is necessary to measure both weight and mass
○	Mass depends on gravity, weight does not
○	Weight is a force, mass is a measure of inertia

Question # 3 of 30 (Start time: 04:24:56 PM, 30 June 2021)

One revolution per minute is about:

Select the correct option

○	0.105 rad/s
○	0.95 rad/s
○	0.0524 rad/s
○	1.57 rad/s



Question # 2 of 30 (Start time: 04:23:43 PM, 30 June 2021) **Total Marks:** 1

A whistle producing sound waves of frequencies 9500 Hz and above is approaching a stationary person with speed v ms-1. The velocity of sound in air is 300 ms-1. If the person can hear frequencies up to 10000 Hz, the maximum value of v up to which he can hear the whistle is.

Select the correct option

○	1.45
○	1.5
○	1.4
○	1.2

Click to Save Answer & Move to Next Question

Question # 1 of 30 (Start time: 04:23:22 PM, 30 June 2021)

An inelastic collision is one in which:

Select the correct option

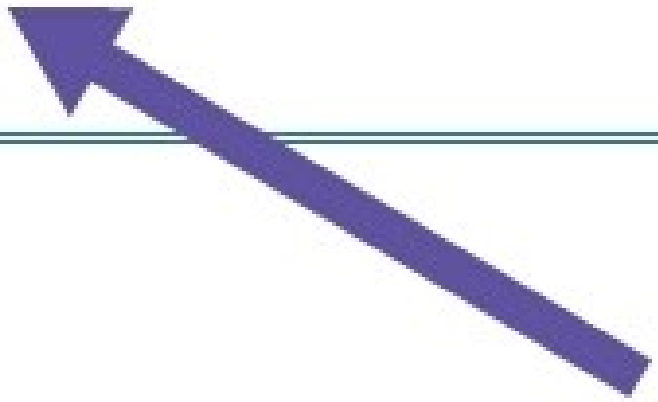
○	momentum is conserved but kinetic energy is not conserved
○	momentum is not conserved but kinetic energy is conserved
○	total mass is not conserved but momentum is conserved
○	neither kinetic energy nor momentum is conserved

Question # 6 of 30 (Start time: 04:27:08 PM, 30 June 2021)

Stars moving away from the earth shows:

Select the correct option

○	Blue shift
○	Red shift
○	No shift
○	shorter wavelength

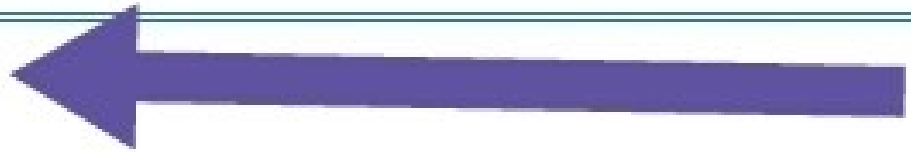


Question # 30 of 30 (Start time: 04:18:48 PM, 30 June 2021)

The work done by gravity during the descent of a projectile:

Select the correct option

○	is negative
○	is zero
○	is positive
○	depends for its sign on the direction of the y axis



Question # 29 of 30 (Start time: 04:18:31 PM, 30 June 2021)

Whenever an object strikes a stationary object of equal mass:

Select the correct option

○	the first object must stop
○	the collision must be elastic
○	none of these
○	the two objects cannot stick together

Question # 28 of 30 (Start time: 04:18:16 PM, 30 June 2021)

If F is the force acting on the test charge qo, the electric field intensity E would be given by

Select the correct option

○	E = F + qo
○	E = F/qo
○	E = qo/F
○	E = F - qo

Question # 25 of 30 (Start time: 04:17:22 PM, 30 June 2021) **Total Marks:** 1

Water flows into a house at a velocity of 15 m/s through a pipe that has a radius of 0.40 m. The water then flows through a smaller pipe at a velocity of 45 m/s. What is the radius of the smaller pipe?

Select the correct option

- 0.37 m
- 0.53 m
- 0.23 m
- 0.17 m

Click to Save Answer & Move to Next Question

Question # 26 of 30 (Start time: 04:17:39 PM, 30 June 2021) **Total I**

A stone is thrown up from the surface of earth, the it reaches a maximum height, kinetic energy is equal to:

Select the correct option

○	2mgh
○	mgh
○	Zero
○	½ mv

Question # 27 of 30 (Start time: 04:17:59 PM, 30 June 2021)

Because a buoyant force acts in the opposite direction of gravity,

Select the correct option

○	objects submerged in water have a net force smaller than their weight.
○	objects submerged in water appear to weigh more than they do in air.
○	objects submerged in water have a net force larger than their weight.
○	objects submerged in water have a net force equal to their weight.

Question # 24 of 30 (Start time: 04:17:05 PM, 30 June 2021)

Swimming becomes possible because of:

Select the correct option

- Third law of motion
- Second law of motion
- Law of torque
- First law of motion

Question # 23 of 30 (Start time: 04:16:36 PM, 30 June 2021)

An elastic collision is one in which:

Select the correct option

○	momentum is conserved but kinetic energy is not conserved
○	momentum is not conserved but kinetic energy is conserved
○	total mass is not conserved but momentum is conserved
○	kinetic energy and momentum are both conserved

Question # 22 of 30 (Start time: 04:16:15 PM, 30 June 2021)

A particle oscillating in simple harmonic motion is:

Select the correct option

○	never in equilibrium because there is always a force
○	in equilibrium at the center of its path because the acceleration is zero there
○	never in equilibrium because it is in motion
○	in equilibrium at the ends of its path because its velocity is zero there
	in equilibrium at the ends of its path because its velocity is zero there

Question # 19 of 30 (Start time: 04:14:36 PM, 30 June 2021) **Total Marks:**

For an ideal fluid flowing through a horizontal pipe, Bernoulli's equation states that the sum of the pressure and energy per unit volume along the pipe does which of the following? (Assume measurements are taken along the pipe in the direction of fluid flow.)

Select the correct option

○	increases, then decreases as the pipe diameter increases
○	decreases as the pipe diameter increases
○	increases as the pipe diameter increases
○	remains constant as the pipe diameter increases

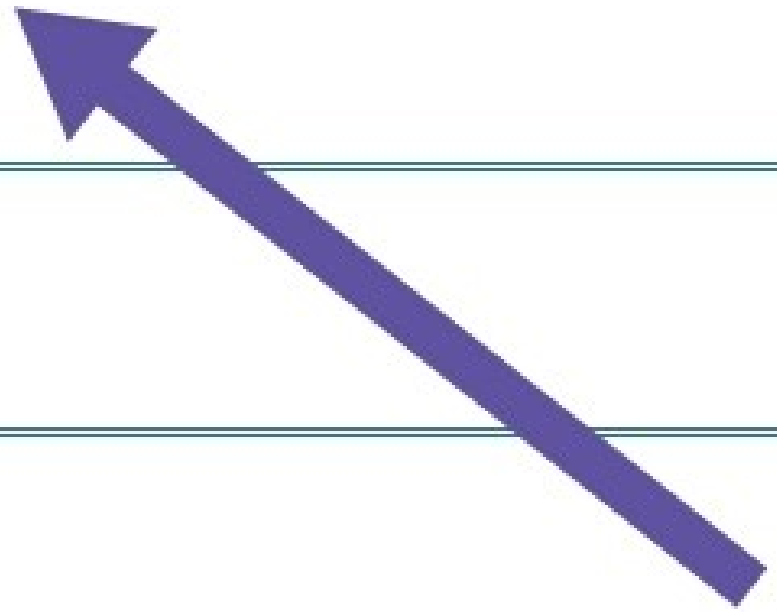
Click to Save Answer & Move to Next Question

Question # 20 of 30 (Start time: 04:15:00 PM, 30 June 2021)

An object attached to one end of a spring makes 20 complete oscillations in 10 s. Its period is:

Select the correct option

○	0.5 s
○	2 s
○	2Hz
○	0.5Hz



Two skaters toss a basketball back and forth on frictionless ice. Which of the following does not change?

Select the correct option

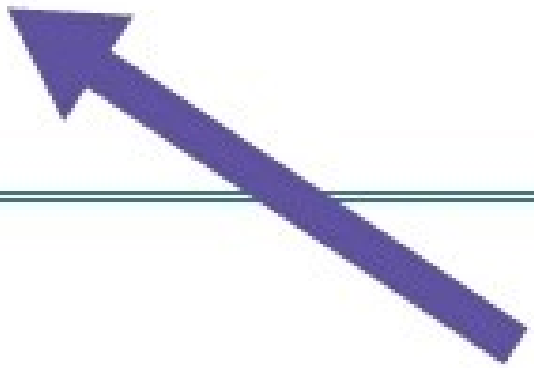
○	the momentum of the system consisting of both skaters and the basketball
○	the momentum of the basketball;
○	the momentum of an individual skater;
○	the momentum of the system consisting of one skater and the basketball;

Question # 18 of 30 (Start time: 04:14:10 PM, 30 June 2021)

A body will be in translational equilibrium if:

Select the correct option

○	$\Sigma P = 0$
○	$\Sigma F = 0$
○	$\Sigma W = 0$
○	$\Sigma T = 0$

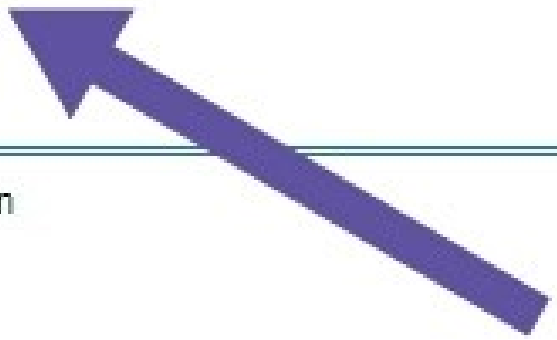


Question # 17 of 30 (Start time: 04:13:50 PM, 30 June 2021)

Acceleration in a body is always produced in the direction of:

Select the correct option

○	Force
○	Acceleration
○	Velocity
○	Weight



Question # 16 of 30 (Start time: 04:13:31 PM, 30 June 2021)

The ultimate strength of a sample is the stress at which the sample

Select the correct option

○	returns to its original shape when the stress is removed
○	bends 180?
○	remains underwater
○	breaks

Question # 13 of 30 (Start time: 04:11:37 PM, 30 June 2021)

If the acceleration of a body is not uniform, then velocity-time graph will be:

Select the correct option

Reload Mat

○	Circle
○	Straight line
○	Curve
○	Sphere

Click to Save Answer & Move to Nex

Question # 14 of 30 (Start time: 04:12:14 PM, 30 June 2021)

The unit of intensity of sound is:

Select the correct option

○	Decibel
○	Candela
○	Meter
○	Kelvin

Click to Sav

Question # 15 of 30 (Start time: 04:12:33 PM, 30 June 2021)

What are the substances called which undergo plastic deformation until they break?

Select the correct option

○	Polymeric substances
○	Brittle substances
○	Ductile substances
○	Amorphous substances

Question # 12 of 30 (Start time: 04:11:00 PM, 30 June 2021)

When a particle moving along a circular path, its projection along the diameter executes:

Select the correct option

Reload Mat

- Simple hormonic motion
- Rotatory motion
- Vibratory motion
- Linear motion

Question # 11 of 30 (Start time: 04:10:43 PM, 30 June 2021) **Total Marks:** 1

As per Coulomb's law, the force of attraction or repulsion between two point charges directly proportional to the

Select the correct option

- product of the magnitude of charges
- sum of the magnitude of charges
- cube of the distance
- square of the distance between them

Question # 10 of 30 (Start time: 04:10:28 PM, 30 June 2021)

the acceleration of projectile in x-direction:

Select the correct option

○	depends on how long it is in the air
○	depends on initial velocity
○	depends on y-acceleration
○	0 m/s^2

Question # 7 of 30 (Start time: 04:09:26 PM, 30 June 2021)

A plane produces a sonic boom only when:

Select the correct option

○	it emits sound waves of very long wavelength
○	it flys faster than the speed of sound
○	it emits sound waves of high frequency
○	it flys at high altitudes

Question # 8 of 30 (Start time: 04:09:44 PM, 30 June 2021)

acceleration of an object must be zero at a point where:

Select the correct option

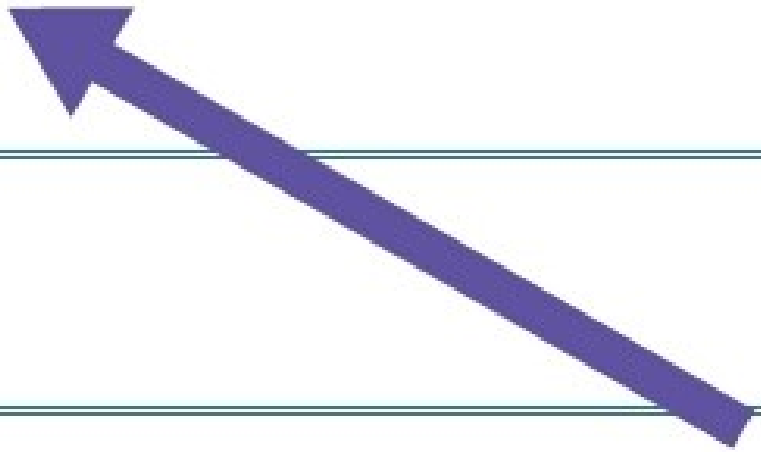
- ○ the instantaneous velocity is constant
- ○ the instantaneous velocity is zero but changing
- ○ the instantaneous velocity is not zero but changing
- ○ the average velocity is zero

Question # 9 of 30 (Start time: 04:10:11 PM, 30 June 2021)

One newton is a force that produces an acceleration of 0.5 m/s2 in a body of mass:

Select the correct option

○	2 kg
○	8 kg
○	4 kg
○	1 kg



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Question # 6 of 30 (Start time: 04:09:06 PM, 30 June 2021) **Total Marks:** 1

Which of the following statements about completely submerged objects resting on the ocean bottom is correct?

Select the correct option

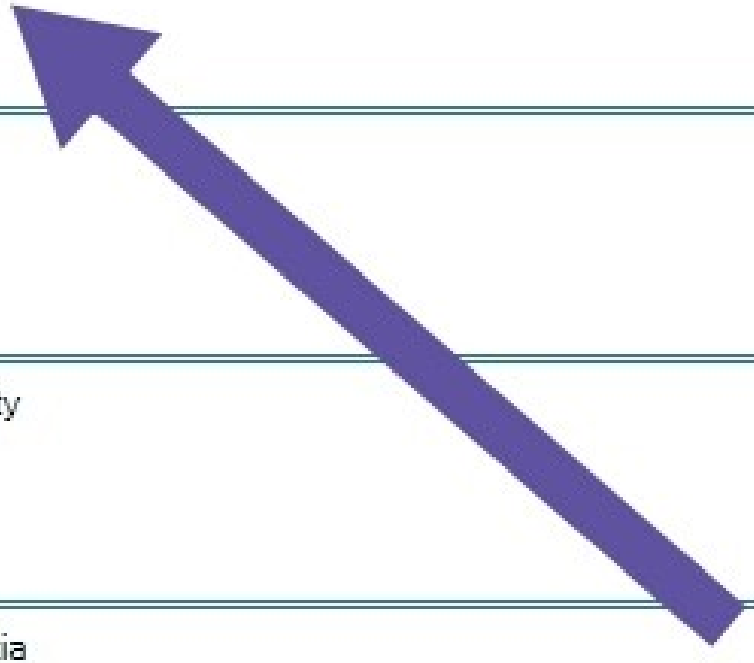
- The apparent weight of the object depends on the object's density.
- The displaced volume of fluid is greater than the volume of the object.
- The buoyant force acting on the object is equal to the object's weight.
- The weight of the object and the buoyant force are equal and opposite.

Question # 5 of 30 (Start time: 04:08:50 PM, 30 June 2021) **Total Marks:** 1

A/an ---------- is the basic reason to change in the motion of an object according to Newton's second law of motion.

Select the correct option

- net force
- acceleration
- change in velocity
- decrease in inertia



Question # 4 of 30 (Start time: 04:08:34 PM, 30 June 2021)

One revolution is the same as:

Select the correct option

○	1 rad
○	2π rad
○	π rad
○	57 rad

Question # 1 of 30 (Start time: 04:07:39 PM, 30 June 2021)

People try to keep the..... over their feet, in order to feel stable.

Select the correct option

○	centre of mass
○	weight
○	centre of gravity
○	mass

Question # 2 of 30 (Start time: 04:07:58 PM, 30 June 2021)

In simple harmonic motion, the magnitude of the acceleration is

Select the correct option

○	constant
○	inversely proportional to the displacement
○	greatest when the velocity is greatest
○	proportional to the displacement

Question # 3 of 30 (Start time: 04:08:17 PM, 30 June 2021)

Q. No. 1: The application/s of dimensional analysis is/are:
i.To convert a physical quantity from one system of units to another.
ii.To check the dimensional correctness of a given equation.
iii.Establish a relationship between different physical quantities in an equation.

Select the correct option

○	i, ii & iii
○	i & iii only
○	ii & iii only
○	i only

Question # 30 of 30 (Start time: 04:05:09 PM, 30 June 2021)

When body moves with constant acceleration the velocity time graph is:

Select the correct option

○	Curve
○	Hyperbola
○	Straight line
○	Parabola

Question # 29 of 30 (Start time: 04:04:45 PM, 30 June 2021)

The dimension of Joule is:

Select the correct option

- [M L2 T-3]
- [M L2 T-2]
- [M L1 T-2]
- [M L2 T-1]

Question # 28 of 30 (Start time: 04:04:28 PM, 30 June 2021) **Tot**

Which of the following statements about floating objects is correct?

Select the correct option

○	The object's density is greater than the density of the fluid on which it floats.
○	The buoyant force equals the object's weight.
○	The displaced volume of fluid is greater than the volume of the object.
○	The object's density is equal to the density of the fluid on which it floats.

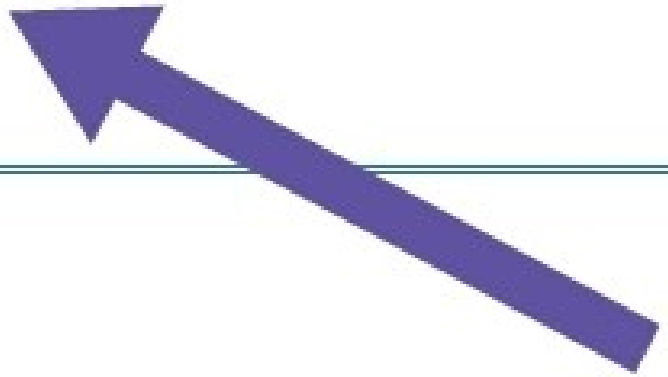
Click to Save Answer & Move to Next Qu

Question # 26 of 30 (Start time: 04:03:23 PM, 30 June 2021) **Total Ma**

Final take off velocity of an airplane is 67 m/s. The length of runway is 2 km, the constant acceleration is:

Select the correct option

○	2.24 ms^-1
○	2.24 ms^-2
○	3.24 ms^-2
○	3.24 ms^-1

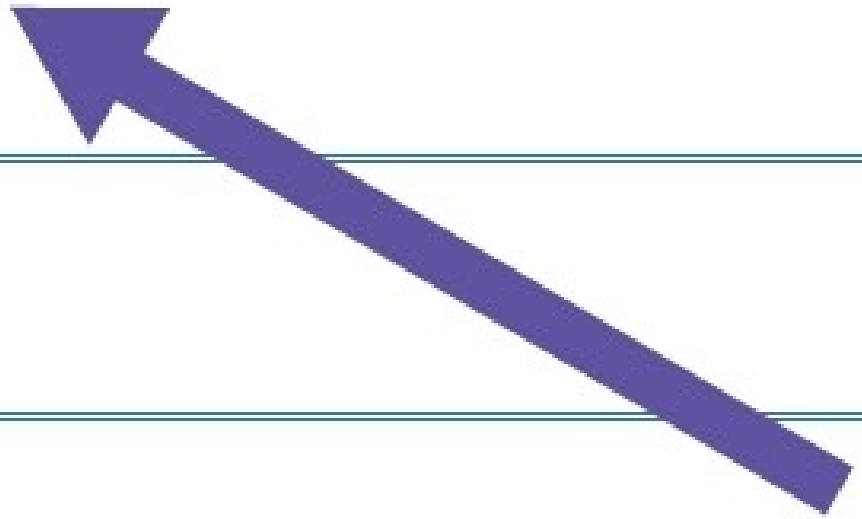


Question # 27 of 30 (Start time: 04:03:51 PM, 30 June 2021) **Total Marks:**

A mosquito's buzz is often rated with a decibel rating of 40 dB. Normal conversation is often rated at 60 dB. How many times more intense is normal conversation compared to a mosquito's buzz?

Select the correct option

○	20
○	100
○	400
○	2



Question # 28 of 30 (Start time: 04:04:28 PM, 30 June 2021) Tot

Which of the following statements about floating objects is correct?

Select the correct option

○	The object's density is greater than the density of the fluid on which it floats.
○	The buoyant force equals the object's weight.
○	The displaced volume of fluid is greater than the volume of the object.
○	The object's density is equal to the density of the fluid on which it floats.

Click to Save Answer & Move to Next Qu

Question # 25 of 30 (Start time: 04:02:58 PM, 30 June 2021)

If the magnitude of force applied is increased, the work done will _____.

Select the correct option

○	become zero
○	be increased
○	have no change
○	be decreased

Question # 24 of 30 (Start time: 04:02:40 PM, 30 June 2021)

"S type" earthquake waves resemble to:

Select the correct option

- ○ Longitudinal waves
- ○ Parallel propagation of waves
- ○ Electromagnetic waves
- ○ Perpendicular propagation of waves

Click to Save Answ

Question # 23 of 30 (Start time: 04:02:19 PM, 30 June 2021)

0.0003711 in scientific notation is

Select the correct option

○	3.7 × 10^-1
○	3.7 × 10^-3
○	3.7 × 10^-5
○	3.7 × 10^-4

Question # 20 of 30 (Start time: 04:01:03 PM, 30 June 2021)

The slope of a velocity - time the graph at any point may be identified with:

Select the correct option

○	instantaneous acceleration
○	average acceleration
○	instantaneous acceleration
○	instantaneous velocity

Question # 21 of 30 (Start time: 04:01:31 PM, 30 June 2021)

Stress can be measured in:

Select the correct option

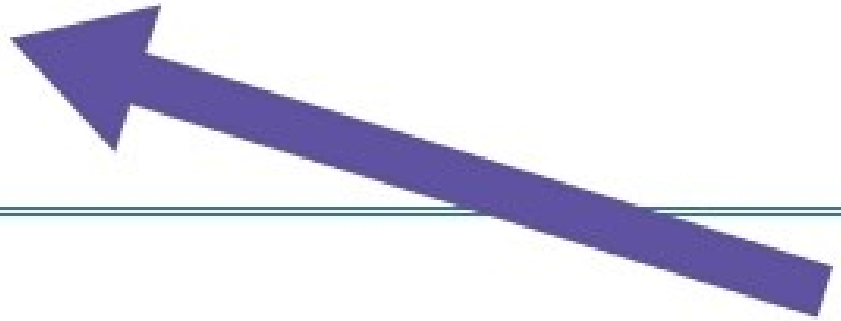
○	N/m
○	N·m2
○	N·m
○	N/m2

Question # 22 of 30 (Start time: 04:01:55 PM, 30 June 2021) **Total Mark**

If force of friction is negligible, then acceleration of two freely falling objects of different masses is:

Select the correct option

○	The same
○	None of these
○	Smaller acceleration for smaller mass
○	Variable



Question # 19 of 30 (Start time: 04:00:49 PM, 30 June 2021)

Sound waves do not travel through

Select the correct option

○	liquids
○	gases
○	vacuum
○	solids

Question # 18 of 30 (Start time: 04:00:15 PM, 30 June 2021) **Total Marks:** 1

A municipal water supply is provided by a tall water tower. Water from this tower flows to a building. How does the water flow out of a faucet on the ground floor of a building compare with the water flow out of an identical faucet on the second floor of the building?

Select the correct option

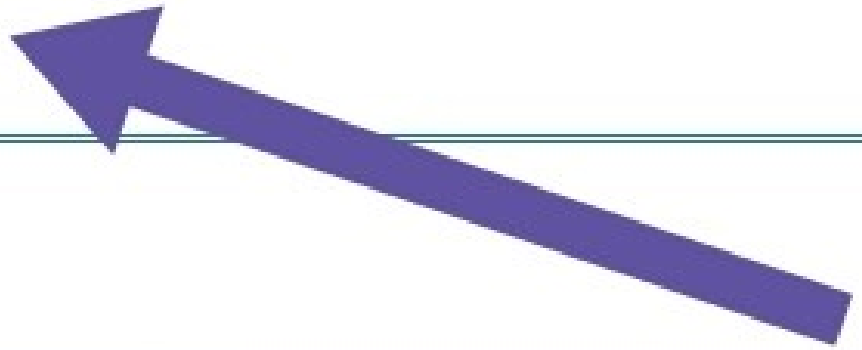
- Water flows at the same speed out of both faucets.
- Water flows more rapidly out of the ground-floor faucet.
- Water flows more rapidly out of the second-floor faucet
- The speed of the water flow cannot be determined unless the height of the water tower is known

Question # 17 of 30 (Start time: 03:59:45 PM, 30 June 2021) **Total Marks:** 1

A particle, held by a string whose other end is attached to a fixed point C, moves in a circle on a horizontal frictionless surface. If the string is cut, the angular momentum of the particle about the point C:

Select the correct option

○	Increases
○	Does not change
○	Decreases
○	Changes direction but not magnitude

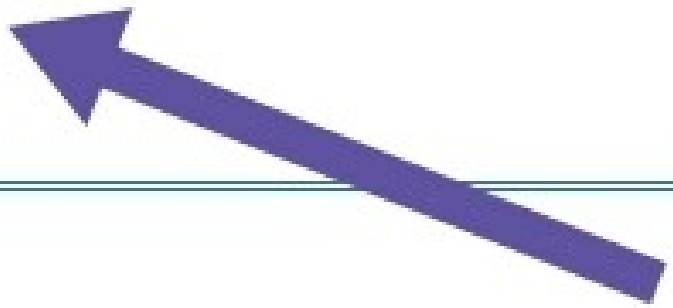


Question # 14 of 30 (Start time: 03:57:46 PM, 30 June 2021)

Object stays in its new position if displaced slightly in:

Select the correct option

○	Neutral equilibrium
○	Unstable equilibrium
○	Stable equilibrium
○	Translational equilibrium



Question # 15 of 30 (Start time: 03:58:13 PM, 30 June 2021)

We will apply the condition of equilibrium to situations in which all forces are:

Select the correct option

○	Straight line
○	Upward
○	Coplanar
○	Downward

Question # 16 of 30 (Start time: 03:59:24 PM, 30 June 2021)

The center of mass of the system consisting of Earth, the Sun, and the planet Mars is:

Select the correct option

○	closer to Mars than to either of the other bodies
○	closer to the Sun than to either of the other bodies
○	closer to Earth than to either of the other bodies
○	at the geometric center of the triangle formed by the three bodies

Click to Save Answer & Move to Nex

Question # 13 of 30 (Start time: 03:57:29 PM, 30 June 2021)

If the force acting on a body is doubled then the acceleration becomes:

Select the correct option

○	Constant
○	One fourth
○	Double
○	Half

Question # 11 of 30 (Start time: 03:56:41 PM, 30 June 2021)

SI Unit of time period is _____.

Select the correct option

○	second
○	nanosecond
○	minute
○	hour

Question # 12 of 30 (Start time: 03:56:57 PM, 30 June 2021)

An object moving in a circle at constant speed:

Select the correct option

○	has an acceleration of constant magnitude 
○	has no change in its direction
○	must have only one force acting on it
○	is not accelerating

Question # 10 of 30 (Start time: 03:56:25 PM, 30 June 2021)

The ability of a capacitor to store charge depends upon

Select the correct option

○	distance between plates
○	all of these
○	area of plates
○	type of dielectric used

Question # 9 of 30 (Start time: 03:56:02 PM, 30 June 2021) Tota

If you strike a horizontal rod vertically from above, what can be said about the waves created in the rod?

Select the correct option

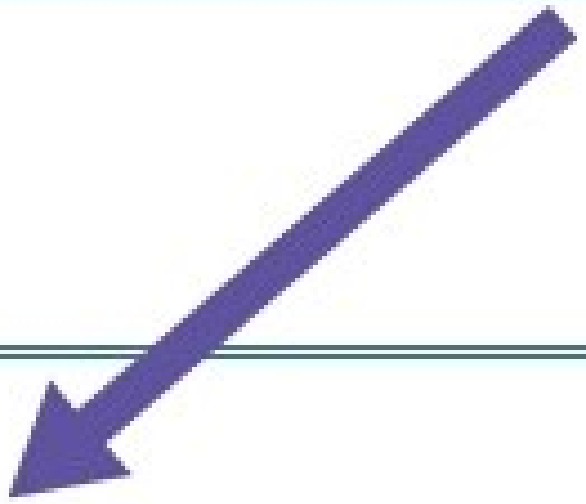
○	The particles travel along the rod from the point of impact to its end.
○	The particles vibrate in circles, perpendicular to the direction of the rod.
○	The particles vibrate horizontally along the direction of the rod.
○	The particles vibrate vertically, perpendicular to the direction of the rod.

Question # 8 of 30 (Start time: 03:55:44 PM, 30 June 2021)

Force is a:

Select the correct option

- Base quantity
- Universal quantity
- Derived quantity
- Scalar quantity



Question # 6 of 30 (Start time: 03:55:01 PM, 30 June 2021)

Young's modulus is a proportionality constant that relates the force per unit area applied perpendicularly at the surface of an object to:

Select the correct option

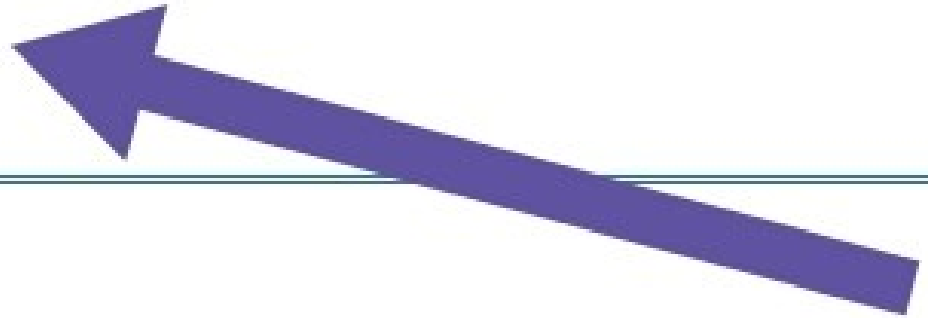
○	the pressure
○	the fractional change in length
○	the shear
○	the fractional change in volume

Question # 7 of 30 (Start time: 03:55:22 PM, 30 June 2021) **Total Marks:** 1

A ball is thrown upward into the air with a speed that is greater than terminal speed. It lands at the place where it was thrown. During its flight the force of air resistance is the greatest:

Select the correct option

- just after it is thrown
- halfway down
- half way up
- at the top of its trajectory



Click to Save Answer & Move to Next Question

Question # 5 of 30 (Start time: 03:53:54 PM, 30 June 2021)

Because a buoyant force acts in the opposite direction of gravity,

Select the correct option

○	objects submerged in water have a net force smaller than their weight.
○	objects submerged in water appear to weigh more than they do in air.
○	objects submerged in water have a net force equal to their weight.
○	objects submerged in water have a net force larger than their weight.

Question # 4 of 30 (Start time: 03:53:22 PM, 30 June 2021)

A sound wave is a mechanical wave; not an electromagnetic wave. This means that

Select the correct option

○	Particles of the medium regularly and repeatedly oscillate about their rest position.
○	A medium is required in order for sound waves to transport energy.
○	A sound wave transports its energy through a vacuum.
○	Particles of the medium move perpendicular to the direction of energy transport.

Question # 3 of 30 (Start time: 03:53:05 PM, 30 June 2021)

The scalar product of two vectors is maximum when they are:

Select the correct option

○	Null
○	Anti-parallel
○	Parallel
○	Perpendicular

Question # 2 of 30 (Start time: 03:52:45 PM, 30 June 2021)

The velocity time graph is parallel to time axis the acceleration of moving body is:

Select the correct option

- ○ Zero
- ○ Positive
- ○ Maximum
- ○ Negative

Question # 1 of 30 (Start time: 03:52:16 PM, 30 June 2021) To

if you travelled for 2.5 hours with an average speed 48 miles/hours, the distance travelled is:

Select the correct option

○	48 miles
○	120 miles
○	300 miles
○	19.2 miles

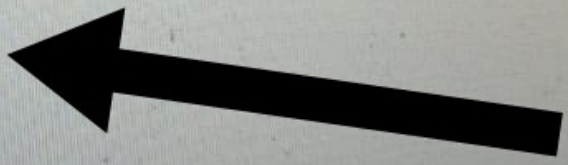
PHY101:Grand Quiz

Question # 30 of 30 (Start time: 12:41:02 PM, 30 June 2021)

Young's modulus can be used to calculate the strain for a stress that is:

Select the correct option

- just above the ultimate strength
- well above the yield strength
- well below the yield strength
- just below the ultimate strength



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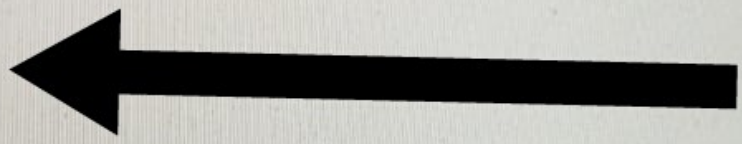
PHY101:Grand Quiz

Question # 29 of 30 (Start time: 12:39:35 PM, 30 June 2021)

Let M denote the mass of Earth and let R denote its radius. The ratio g/G at Earth's surface is:

Select the correct option

- M/R^2
- R^2/M
- M/R
- MR^2



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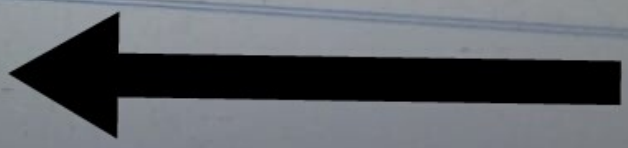
PHY101:Grand Quiz

Question # 28 of 30 (Start time: 12:38:31 PM, 30 June 2021)

Stress is proportional to strain called:

Select the correct option

- Newton's law
- Young's law
- Pascal's law
- Hook's law



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PHY101:Grand Quiz

Question # 27 of 30 (Start time: 12:37:55 PM, 30 June 2021)

Take the speed of sound to be 340m/s. A thunder clap is heard about 3 s after the lightning is seen. The source of both light and sound is:

Select the correct option

- emitting a much higher frequency than is heard
- moving overhead faster than the speed of sound
- emitting a much lower frequency than is heard
- about 1000m away

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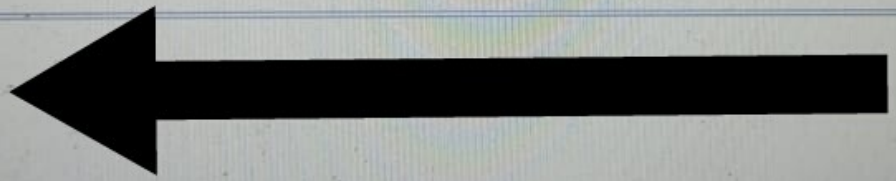
PHY101:Grand Quiz

Question # 26 of 30 (Start time: 12:37:20 PM, 30 June 2021)

Let F1 be the magnitude of the gravitational force exerted on the Sun by Earth and F2 be the magnitude of the force exerted on Earth by the Sun. Then:

Select the correct option

- F1 is much greater than F2
- F1 is slightly greater than F2
- F1 is equal to F2
- F1 is slightly less than F2

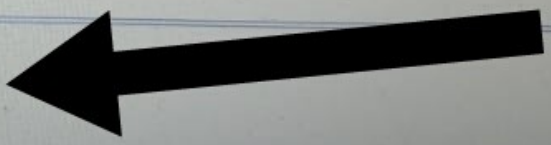


Question # 25 of 30 (Start time: 12:36:43 PM, 30 June 2021)

An object moves in a circle at constant speed. The work done by the centripetal force is zero because:

Select the correct option

- the displacement for each revolution is zero
- the average force for each revolution is zero
- there is no friction
- the centripetal force is perpendicular to the velocity



Question # 24 of 30 (Start time: 12:36:06 PM, 30 June 2021)

Which of the following statements about floating objects is correct?

Select the correct option

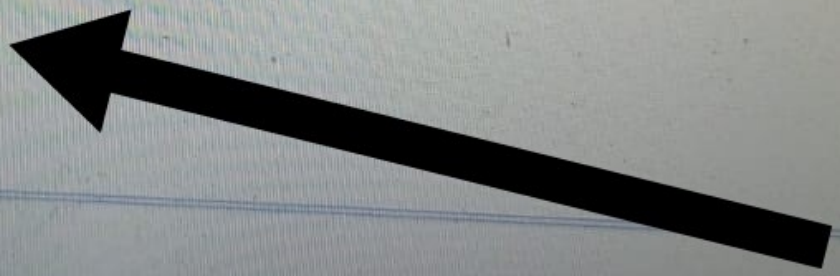
- The object's density is equal to the density of the fluid on which it floats.
- The object's density is greater than the density of the fluid on which it floats.
- The displaced volume of fluid is greater than the volume of the object.
- The buoyant force equals the object's weight.

Question # 23 of 30 (Start time: 12:34:29 PM, 30 June 2021)

The rate of change of momentum of a body is equal to:

Select the correct option

- Acceleration
- Velocity
- Applied force
- Displacement



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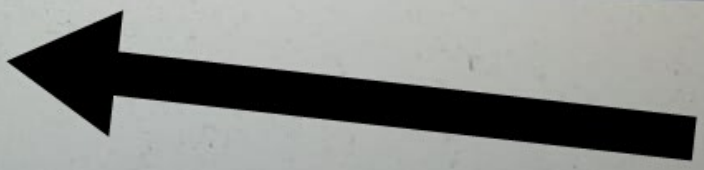
Question # 22 of 30 (Start time: 12:33:53 PM, 30 June 2021)

Force is a:

Select the correct option

- Scalar quantity
- Universal quantity
- Derived quantity
- Base quantity



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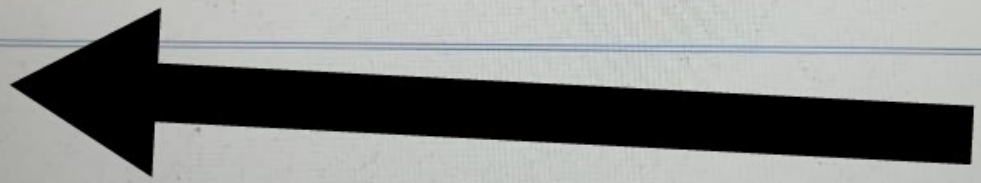
PHY101:Grand Quiz

Question # 20 of 30 (Start time: 12:31:42 PM, 30 June 2021)

The flow rate of blood through the average human aorta is about 9.0 ? 101 cm3/s. If the aorta has a radius of 1.0 cm, what is the velocity of the blood flow?

Select the correct option

- 37 cm/s
- 29 cm/s
- 14 cm/s
- 32 cm/s



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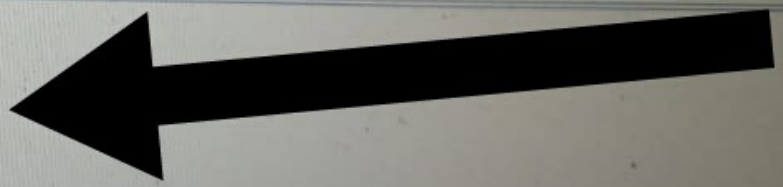
Question # 21 of 30 (Start time: 12:32:37 PM, 30 June 2021)

If you strike a horizontal rod vertically from above, what can be said about the waves created in the rod?

Select the correct option

- The particles vibrate in circles, perpendicular to the direction of the rod.
- The particles vibrate vertically, perpendicular to the direction of the rod.
- The particles vibrate horizontally along the direction of the rod.
- The particles travel along the rod from the point of impact to its end.



Question # 19 of 30 (Start time: 12:30:12 PM, 30 June 2021) **Total Marks: 1**

A certain wire stretches 0.90 cm when outward forces with magnitude F are applied to each end. The same forces are applied to a wire of the same material but with three times the diameter and three times the length. The second wire stretches:

Select the correct option

- 0.10 cm
- 2.7 cm
- 0.90 cm
- 0.30 cm

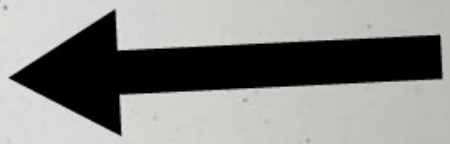
PHY101:Grand Quiz

Question # 18 of 30 (Start time: 12:29:24 PM, 30 June 2021)

Which of the following statements about completely submerged objects resting on the ocean bottom is correct?

Select the correct option

- The apparent weight of the object depends on the object's density.
- The buoyant force acting on the object is equal to the object's weight.
- The weight of the object and the buoyant force are equal and opposite.
- The displaced volume of fluid is greater than the volume of the object.

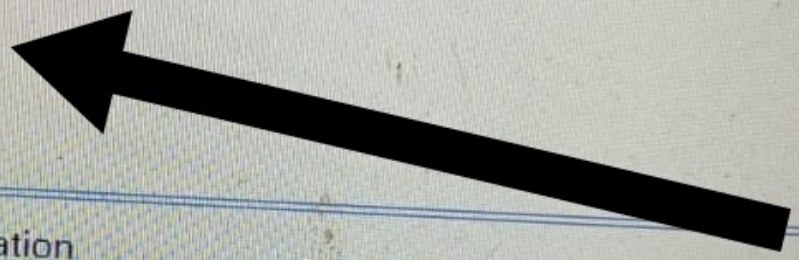


Question # 17 of 30 (Start time: 12:28:58 PM, 30 June 2021)

Per-second refers to the dimensions of physical quantity:

Select the correct option

- Angular velocity
- Angular acceleration
- Angular momentum
- Angular displacement

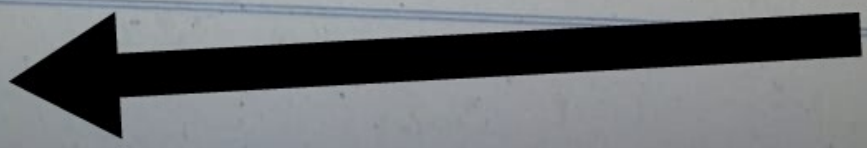


Question # 16 of 30 (Start time: 12:28:33 PM, 30 June 2021)

The ratio of circumference of a circle to its diameter is equal to:

Select the correct option

- ○ π/2
- ○ one steradian
- ○ 2 π
- ○ π



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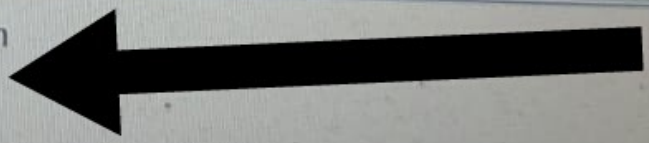
Question # 15 of 30 (Start time: 12:27:57 PM, 30 June 2021)

The speed of sound in medium depends upon

Select the correct option

- wavelength
- amplitude
- properties of the medium
- frequency



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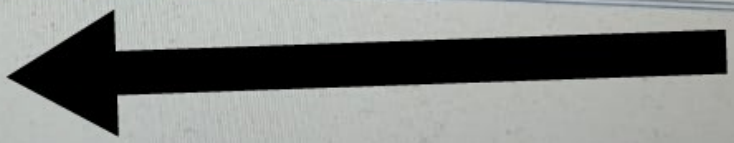
Question # 14 of 30 (Start time: 12:27:26 PM, 30 June 2021)

The newton·second is a unit of:

Select the correct option

- work
- angular momentum
- linear momentum
- power



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Question # 12 of 30 (Start time: 12:25:25 PM, 30 June 2021) **Total Marks: 1**

For an ideal fluid flowing through a horizontal pipe, Bernoulli's equation states that the sum of the pressure and energy per unit volume along the pipe does which of the following? (Assume measurements are taken along the pipe in the direction of fluid flow.)

Select the correct option

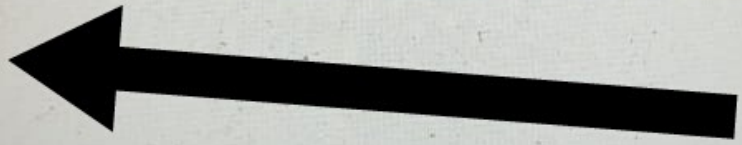
- remains constant as the pipe diameter increases
- increases as the pipe diameter increases
- increases, then decreases as the pipe diameter increases
- decreases as the pipe diameter increases

Question # 11 of 30 (Start time: 12:24:05 PM, 30 June 2021)

If the distance between all pairs of particles of the body do not change by applying a force then the body is said to be

Select the correct option

- flexible
- large
- rigid
- small

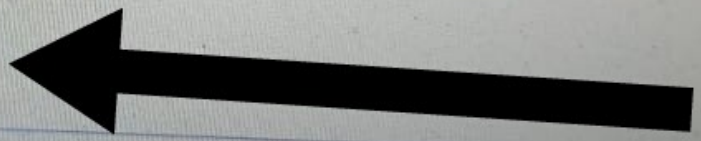


Question # 10 of 30 (Start time: 12:23:32 PM, 30 June 2021)

For a body to be in equilibrium under the combined action of several forces:

Select the correct option

- any two of these forces must be balanced by a third force
- all of the forces form pairs of equal and opposite forces
- all the forces must be applied at the same point
- the sum of the components of all the forces in any direction must equal zero



Question # 9 of 30 (Start time: 12:22:39 PM, 30 June 2021)

A body of mass 2 kg moving with velocity 4 m/s has K.E equals to:

Select the correct option

- 16 J
- 32 J
- 2 J
- 8 J

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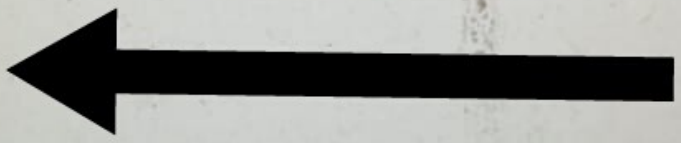
Question # 8 of 30 (Start time: 12:21:48 PM, 30 June 2021)

Work done in gravitational field:

Select the correct option

- Negative
- Zero
- Maximum
- Positive



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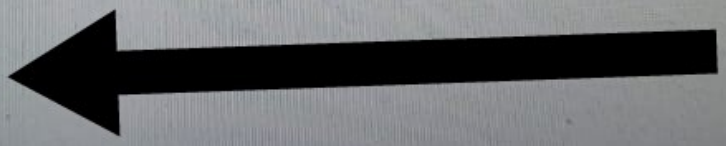
Question # 7 of 30 (Start time: 12:20:46 PM, 30 June 2021)

6 joule of work done in 3 seconds then power is:

Select the correct option

- 18 watt
- 3 watt
- 6 watt
- 2 watt



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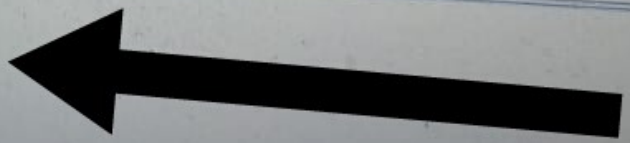
Question # 6 of 30 (Start time: 12:19:49 PM, 30 June 2021)

In .....object returns to its original position if displaced slightly

Select the correct option

- dynamic equilibrium
- unstable equilibrium
- rotational equilibrium
- stable equilibrium



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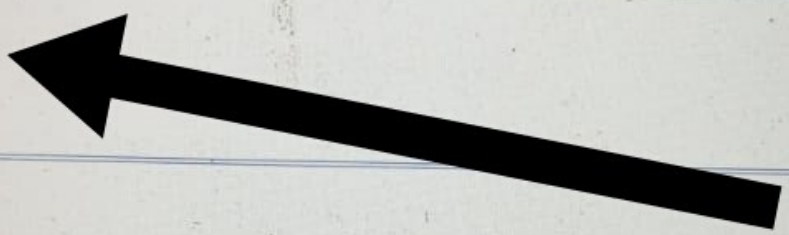
PHY101:Grand Quiz

Question # 4 of 30 (Start time: 12:17:45 PM, 30 June 2021)

The vibrations or the pressure variations inside the inner ear are converted into electrical signals by the_____.

Select the correct option

- tympanic membrane
- cochlea
- anvil
- pinna

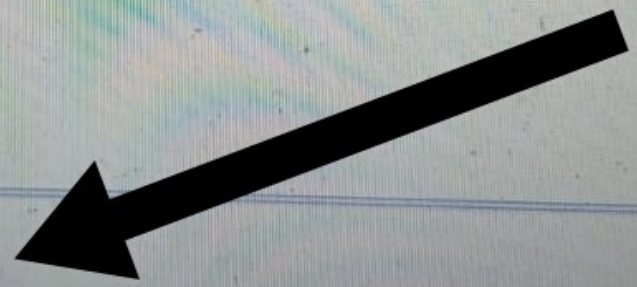


Question # 3 of 30 (Start time: 12:17:13 PM, 30 June 2021)

The angular displacement of one revolution is equal to:

Select the correct option

- n radian
- 1 radian
- n/2 radian
- 2n radian



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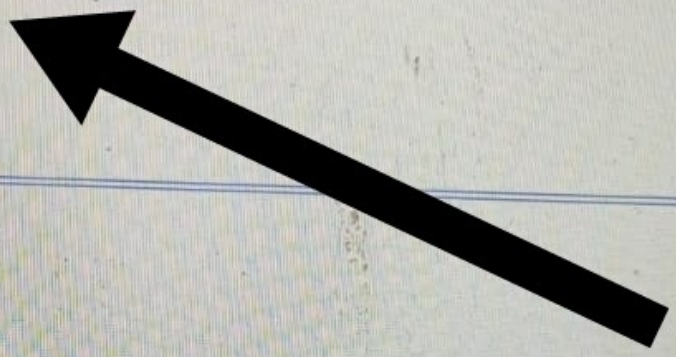
Question # 2 of 30 (Start time: 12:16:12 PM, 30 June 2021)

The product of force and time is called change in:

Select the correct option

- Impulse
- Force
- Torque
- Acceleration

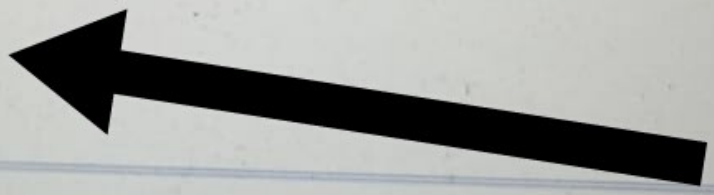


Question # 1 of 30 (Start time: 12:14:44 PM, 30 June 2021)

Stars moving away from the earth shows:

Select the correct option

- Blue shift
- No shift
- Red shift
- shorter wavelength



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