

RIZ MUGHAL

QUIZ MASTER

Grand Quiz(PHY101)

100% correct solution.

For more information you can visit my channel and for any type of help related to CS619 you can contact me.



YOUTUBE CHANNEL:

<https://www.youtube.com/channel/UCINsFwDiB62SValCcPDZbRQ/playlists>

FACEBOOK GROUP:

<https://www.facebook.com/groups/923887914750307>

PHY101:Grand Quiz

Question # 1 of 30 (Start time: 10:35:12 AM, 04 January 2021)

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

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | returns to its original shape when the stress is removed |
| <input type="radio"/> | remains underwater |
| <input checked="" type="radio"/> | breaks |
| <input type="radio"/> | bends 180° |

PHY101:Grand Quiz

Question # 2 of 30 (Start time: 10:35:36 AM, 04 January 2021

The value of k in coulomb's law depends upon

Select the correct option

<input checked="" type="radio"/>	medium between two charges
<input type="radio"/>	distance between charges
<input type="radio"/>	magnitude of charges
<input type="radio"/>	all of these

PHY101:Grand Quiz

Question # 3 of 30 (Start time: 10:35:54 AM, 04 January 2020)

The law of inertia was firstly formulated by:

Select the correct option

- | | |
|----------------------------------|-----------|
| <input type="radio"/> | Aristotle |
| <input type="radio"/> | Galileo |
| <input checked="" type="radio"/> | Newton |
| <input type="radio"/> | Einstein |

RIZ MUGHAL

PHY101:Grand Quiz

Question # 4 of 30 (Start time: 10:36:10 AM, 04 January 2021)

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

Select the correct option

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | 2π |
| <input checked="" type="radio"/> | π |
| <input type="radio"/> | $\pi/2$ |
| <input type="radio"/> | one steradian |

RIZ MUGHAL

Question # 5 of 30 (Start time: 10:36:25 AM, 04 January 2021)

Total Marks: 1

A water bed that is 1.5 m wide and 2.5 m long weighs 1055 N. Assuming the entire lower surface of the bed is in contact with the floor, what is the pressure the bed exerts on the floor?

Select the correct option

- | | | |
|----------------------------------|--------|----|
| <input type="radio"/> | 250 Pa | // |
| <input type="radio"/> | 260 Pa | // |
| <input type="radio"/> | 270 Pa | // |
| <input checked="" type="radio"/> | 280 Pa | // |

PHY101:Grand Quiz

Question # 6 of 30 (Start time: 10:36:40 AM, 04 January 2021)

The centre of gravity is the average location of the of an object

Select the correct option

<input type="radio"/>	mass
<input checked="" type="radio"/>	weight
<input type="radio"/>	static equilibrium
<input type="radio"/>	dynamic

RIZ MUGHAL

PHY101:Grand Quiz

Question # 7 of 30 (Start time: 10:36:54 AM, 04 January 2021)

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

Select the correct option

<input type="radio"/>	Velocity
<input type="radio"/>	Weight
<input checked="" type="radio"/>	Force
<input type="radio"/>	Acceleration

RIZ MUGHAL

Question # 8 of 30 (Start time: 10:37:10 AM, 04 January 2021)

Tot

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

Select the correct option

- | | |
|----------------------------------|-------------------------------------|
| <input type="radio"/> | cube of the distance |
| <input checked="" type="radio"/> | product of the magnitude of charges |
| <input type="radio"/> | sum of the magnitude of charges |
| <input type="radio"/> | square of the distance between them |

Question # 9 of 30 (Start time: 10:37:25 AM, 04 January 2021)

One revolution is the same as:

Select the correct option

- | | |
|----------------------------------|--------|
| <input checked="" type="radio"/> | 2n rad |
| <input type="radio"/> | n rad |
| <input type="radio"/> | 57 rad |
| <input type="radio"/> | 1 rad |

RIZ MUGHAL

Question # 10 of 30 (Start time: 10:37:39 AM, 04 January 2021)

A ----- vector is obtained by dividing the vector by its magnitude:

Select the correct option

<input checked="" type="radio"/>	unit
<input type="radio"/>	position
<input type="radio"/>	normal
<input type="radio"/>	negative

RIZ MUGHAL

Question # 11 of 30 (Start time: 10:37:57 AM, 04 January 2021)

Total Marks: 1

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

- | | | |
|----------------------------------|--|----|
| <input type="radio"/> | moving overhead faster than the speed of sound | // |
| <input type="radio"/> | emitting a much higher frequency than is heard | // |
| <input type="radio"/> | emitting a much lower frequency than is heard | // |
| <input checked="" type="radio"/> | about 1000m away | // |

Question # 12 of 30 (Start time: 10:38:14 AM, 04 January 2021)

Total M

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

<input checked="" type="radio"/>	rigid
<input type="radio"/>	large
<input type="radio"/>	small
<input type="radio"/>	flexible

Question # 13 of 30 (Start time: 10:38:34 AM, 04 January 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

- | | | |
|----------------------------------|--|----|
| <input type="radio"/> | increases as the pipe diameter increases | // |
| <input type="radio"/> | decreases as the pipe diameter increases | // |
| <input checked="" type="radio"/> | remains constant as the pipe diameter increases | // |
| <input type="radio"/> | increases, then decreases as the pipe diameter increases | // |

Question # 14 of 30 (Start time: 10:38:59 AM, 04 January 2021)

Which of the following statement is true?

Select the correct option

- | | |
|----------------------------------|--|
| <input checked="" type="radio"/> | Weight is a force, mass is a measure of inertia |
| <input type="radio"/> | Mass depends on gravity, weight does not |
| <input type="radio"/> | Gravity is necessary to measure both weight and mass |
| <input type="radio"/> | Heavier objects weigh more than light objects |

Question # 15 of 30 (Start time: 10:39:14 AM, 04 January 2021)

Total M

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

<input checked="" type="radio"/>	net force
<input type="radio"/>	decrease in inertia
<input type="radio"/>	change in velocity
<input type="radio"/>	acceleration

RIZ MUGHAL

Question # 16 of 30 (Start time: 10:39:30 AM, 04 January 2021)

When a spring is compressed or stretched, the potential energy of the spring

Select the correct option

<input type="radio"/>	Decreases
<input type="radio"/>	Stays constant
<input checked="" type="radio"/>	Increases
<input type="radio"/>	Becomes zero

PHY101:Grand Quiz

Question # 17 of 30 (Start time: 10:39:44 AM, 04 January 2021)

The dimensional units of ratio of work and power is:

Select the correct option

<input type="radio"/>	J
<input checked="" type="radio"/>	T
<input type="radio"/>	L
<input type="radio"/>	F

RIZ MUGHAL

Question # 18 of 30 (Start time: 10:39:58 AM, 04 January 2021)

A particle oscillating in simple harmonic motion is:

Select the correct option

- | | |
|-------------------------------------|---|
| <input type="radio"/> | in equilibrium at the ends of its path because its velocity is zero there |
| <input type="radio"/> | in equilibrium at the ends of its path because its velocity is zero there |
| <input checked="" type="checkbox"/> | in equilibrium at the center of its path because the acceleration is zero there |
| <input type="radio"/> | never in equilibrium because it is in motion |
| <input type="radio"/> | never in equilibrium because there is always a force |

RIZMUGHAL

Question # 19 of 30 (Start time: 10:40:13 AM, 04 January 2021)

Total Marks:

A fire whistle emits a tone of 170 Hz. Take the speed of sound in air to be 340m/s. The wavelength of this sound is about:

Select the correct option

- | | | |
|----------------------------------|------|----|
| <input type="radio"/> | 3.0m | // |
| <input type="radio"/> | 0.5m | // |
| <input type="radio"/> | 1.0m | // |
| <input checked="" type="radio"/> | 2.0m | // |

Question # 20 of 30 (Start time: 10:40:28 AM, 04 January 2021)

Total Marks: 1

How much pressure is exerted on a submarine at a depth of 8.50 km in the Pacific Ocean? (The density of sea water = $1.025 \times 10^3 \text{ kg/m}^3$, and the atmospheric pressure at sea level = $1.01 \times 10^5 \text{ Pa}$.)

Select the correct option

- | | | |
|----------------------------------|------------------------------|----|
| <input type="radio"/> | $8.6 \times 10^5 \text{ Pa}$ | // |
| <input type="radio"/> | $8.7 \times 10^6 \text{ Pa}$ | // |
| <input type="radio"/> | $9.5 \times 10^6 \text{ Pa}$ | // |
| <input checked="" type="radio"/> | $8.6 \times 10^6 \text{ Pa}$ | // |

Question # 21 of 30 (Start time: 10:40:44 AM, 04 January 2021)

A force of 100 N acts upon a body for five seconds. What will be the change in momentum?

Select the correct option

<input type="radio"/>	200 NS
<input checked="" type="radio"/>	500 NS
<input type="radio"/>	20 NS
<input type="radio"/>	50 NS

RIZ MUGHAL

Question # 22 of 30 (Start time: 10:40:59 AM, 04 January 2021)

One newton is a force that produces an acceleration of 0.5 m/s^2 in a body of mass:

Select the correct option

<input type="radio"/>	1 kg
<input checked="" type="radio"/>	2 kg
<input type="radio"/>	4 kg
<input type="radio"/>	8 kg

Question # 23 of 30 (Start time: 10:41:15 AM, 04 January 2021)

When breaks are applied to a fast moving car, the passenger will be thrown:

Select the correct option

<input checked="" type="radio"/>	Forward
<input type="radio"/>	Backward
<input type="radio"/>	Downward
<input type="radio"/>	Upward

RIZ MUGHAL

PHY101:Grand Quiz

Question # 24 of 30 (Start time: 10:41:30 AM, 04 January 2021)

In the formula $F = Gm_1m_2/r^2$, the quantity G:

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | depends on the local value of g |
| <input type="radio"/> | is used only when Earth is one of the two masses |
| <input type="radio"/> | is greatest at the surface of Earth |
| <input checked="" type="radio"/> | is a universal constant of nature |

PHY101:Grand Quiz

Question # 25 of 30 (Start time: 10:41:45 AM, 04 January 2021)

Per-second refers to the dimensions of physical quantity:

Select the correct option

- | | |
|----------------------------------|----------------------|
| <input type="radio"/> | Angular displacement |
| <input checked="" type="radio"/> | Angular velocity |
| <input type="radio"/> | Angular acceleration |
| <input type="radio"/> | Angular momentum |

PHY101:Grand Quiz

Question # 26 of 30 (Start time: 10:41:59 AM, 04 January 2021)

Light year is a unit of:

Select the correct option

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | acceleration |
| <input type="radio"/> | velociy |
| <input type="radio"/> | time |
| <input checked="" type="radio"/> | distance |

Question # 27 of 30 (Start time: 10:42:18 AM, 04 January 2021)

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

Select the correct option

<input type="radio"/>	just below the ultimate strength
<input type="radio"/>	just above the ultimate strength
<input checked="" type="radio"/>	well below the yield strength
<input type="radio"/>	well above the yield strength

RIZ MUGHAL

Question # 28 of 30 (Start time: 10:42:32 AM, 04 January 2021)

A wheel of radius 50 cm having the angular speed of 5 rad/s will have linear speed in m/s?

Select the correct option

- | | |
|----------------------------------|-----|
| <input type="radio"/> | 0.5 |
| <input type="radio"/> | 1.5 |
| <input checked="" type="radio"/> | 2.5 |
| <input type="radio"/> | 3.5 |

Question # 29 of 30 (Start time: 10:42:47 AM, 04 January 2021)

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

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | the displacement for each revolution is zero |
| <input type="radio"/> | the average force for each revolution is zero |
| <input type="radio"/> | there is no friction |
| <input checked="" type="radio"/> | the centripetal force is perpendicular to the velocity |

Question # 30 of 30 (Start time: 10:43:04 AM, 04 January 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

- | | | |
|----------------------------------|------------------------------|----|
| <input checked="" type="radio"/> | just after it is thrown | // |
| <input type="radio"/> | half way up | // |
| <input type="radio"/> | at the top of its trajectory | // |
| <input type="radio"/> | halfway down | // |