



PHY101 QUIZ(2)

Lecture: 1 to 21

RIZ MUGHAL **SQA ENGINEER:**

I'm providing 100% correct quiz solution.

You can visit my YouTube channel for more quiz solution, also final year project including project assignments, and viva.

YOUTUBE:

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

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

Question # 1 of 10 (Start time: 09:10:43 AM, 14 June 2021)

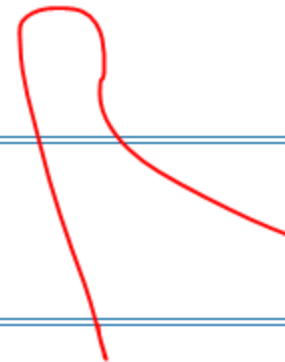
Total Marks: 1

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

<input type="radio"/>	Decreases
<input type="radio"/>	Increases
<input type="radio"/>	Changes direction but not magnitude
<input checked="" type="radio"/>	Does not change

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Question # 2 of 10 (Start time: 09:11:14 AM, 14 June 2021)

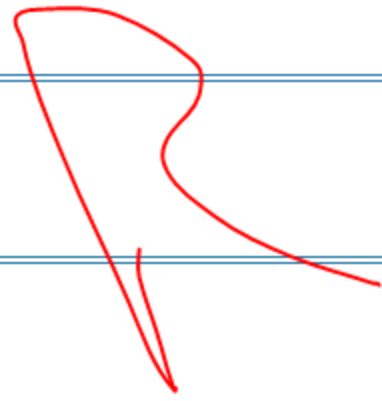
Tota

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

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Question # 3 of 10 (Start time: 09:11:37 AM, 14 June 2021)

A bullet shoot straight up returns to its starting point in 10 sec. the initial speed was:

Select the correct option

- | | |
|----------------------------------|----------|
| <input type="radio"/> | 98 m/s |
| <input checked="" type="radio"/> | 49 m/s |
| <input type="radio"/> | 9.8 m/s |
| <input type="radio"/> | 24.5 m/s |

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Question # 4 of 10 (Start time: 09:11:55 AM, 14 June 2021)

One revolution per minute is about:

Select the correct option

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | 1.57 rad/s |
| <input type="radio"/> | 0.105 rad/s |
| <input type="radio"/> | 0.95 rad/s |
| <input checked="" type="radio"/> | 0.0524 rad/s |

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Question # 5 of 10 (Start time: 09:12:12 AM, 14 June 2021)

The goal of all scientific inquiry (or scientific method) is:

Select the correct option

- | | |
|----------------------------------|---|
| <input checked="" type="radio"/> | predicting natural events based on known patterns |
| <input type="radio"/> | world peace |
| <input type="radio"/> | world dominion |
| <input type="radio"/> | to make everyone rich and happy |
- Riz Mughal*

Question # 6 of 10 (Start time: 09:12:36 AM, 14 June 2021)

when a body moves in a circle, the angle between its linear velocity and angular velocity:

Select the correct option

- | | |
|----------------------------------|-----|
| <input checked="" type="radio"/> | 90 |
| <input type="radio"/> | 45 |
| <input type="radio"/> | 180 |
| <input type="radio"/> | 0 |

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PHY101:Online Quiz # 2 Physics (PHY101)

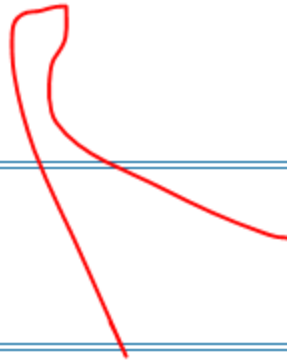
Question # 7 of 10 (Start time: 09:12:57 AM, 14 June 2021)

The center of mass of a uniform disk of radius R is located:

Select the correct option

- | | |
|----------------------------------|----------------------------------|
| <input type="radio"/> | on the rim |
| <input type="radio"/> | a distance $R/3$ from the center |
| <input type="radio"/> | a distance $R/2$ from the center |
| <input checked="" type="radio"/> | at the center |

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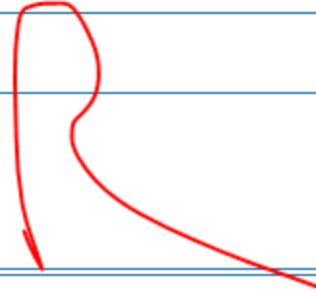
Question # 8 of 10 (Start time: 09:13:17 AM, 14 June 2021)

Force:

Select the correct option

- is the rate of change of doing work
- is the ability to do work
- equals the negative integral (with respect to distance) of the potential energy function
- equals the time rate of change of momentum

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Question # 9 of 10 (Start time: 09:13:36 AM, 14 June 2021)

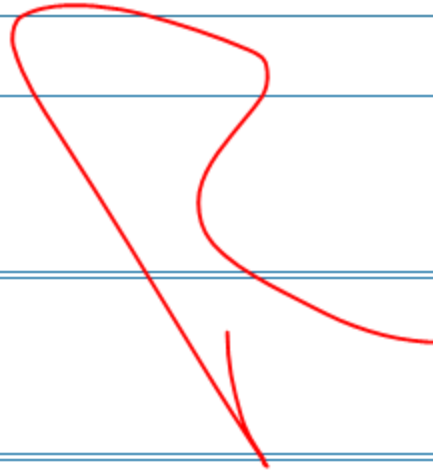
Total Marks

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

- | | |
|----------------------------------|-----|
| <input checked="" type="radio"/> | 100 |
| <input type="radio"/> | 2 |
| <input type="radio"/> | 20 |
| <input type="radio"/> | 400 |

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Question # 10 of 10 (Start time: 09:13:59 AM, 14 June 2021)

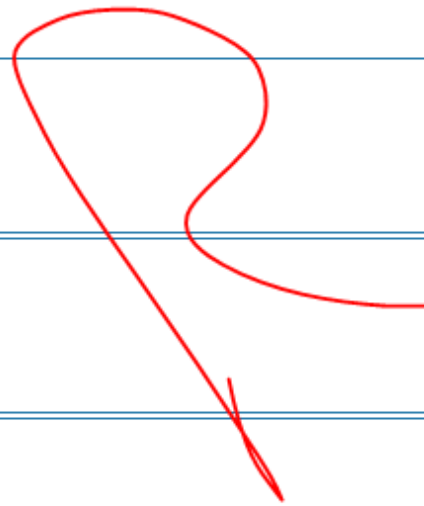
Total Marks

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

- | | |
|----------------------------------|---------------------------------|
| <input type="radio"/> | Non-inertial frame of reference |
| <input type="radio"/> | An inertial frame of reference |
| <input type="radio"/> | Non isolated system |
| <input checked="" type="radio"/> | An isolated system |

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2nd account

Question # 1 of 10 (Start time: 09:22:36 AM, 14 June 2021)

back and forth in a leftward and rightward direction. This type of wave is known as a _____.

Select the correct option

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | Electromagnetic |
| <input type="radio"/> | Transverse |
| <input checked="" type="radio"/> | Longitudinal |
| <input type="radio"/> | Mechanical |

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R

Question # 2 of 10 (Start time: 09:22:57 AM, 14 June 2021)

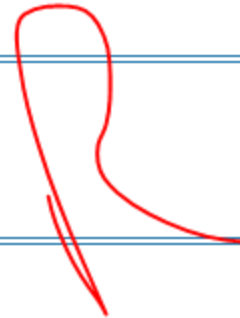
Total Marks: 1

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

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

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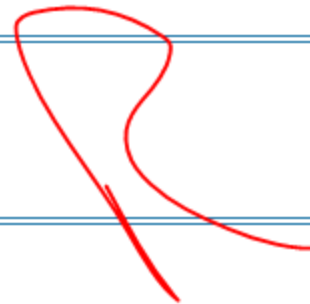
Question # 3 of 10 (Start time: 09:23:17 AM, 14 June 2021)

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

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | at the geometric center of the triangle formed by the three bodies |
| <input checked="" type="radio"/> | closer to the Sun than to either of the other bodies |
| <input type="radio"/> | closer to Mars than to either of the other bodies |
| <input type="radio"/> | closer to Earth than to either of the other bodies |

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Question # 4 of 10 (Start time: 09:23:34 AM, 14 June 2021)

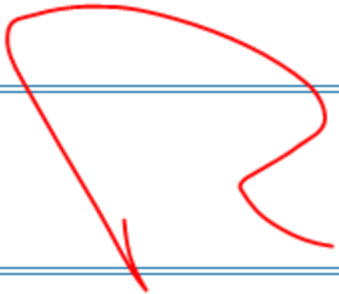
Total Marks: 1

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

<input type="radio"/>	Increases
<input type="radio"/>	Decreases
<input checked="" type="radio"/>	Does not change
<input type="radio"/>	Changes direction but not magnitude

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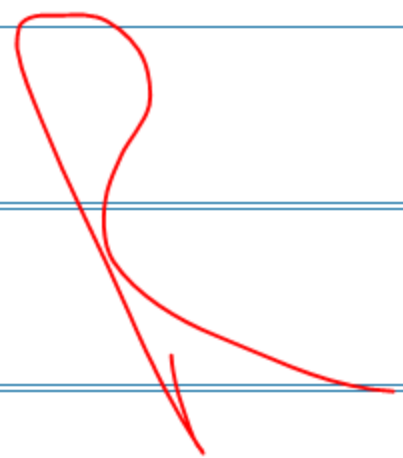
Question # 5 of 10 (Start time: 09:23:51 AM, 14 June 2021)

A plane produces a sonic boom only when:

Select the correct option

- | | |
|----------------------------------|--|
| <input checked="" type="radio"/> | it flies faster than the speed of sound |
| <input type="radio"/> | it flies at high altitudes |
| <input type="radio"/> | it emits sound waves of high frequency |
| <input type="radio"/> | it emits sound waves of very long wavelength |

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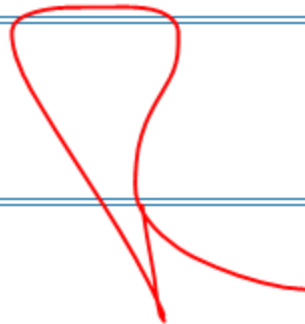
Question # 6 of 10 (Start time: 09:24:08 AM, 14 June 2021)

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

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Question # 7 of 10 (Start time: 09:24:30 AM, 14 June 2021)

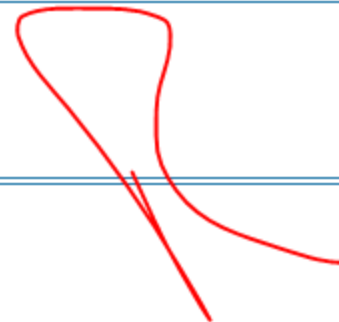
Total

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

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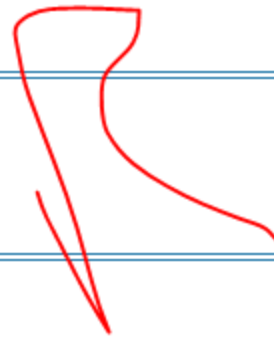
Question # 8 of 10 (Start time: 09:24:51 AM, 14 June 2021)

As the wavelength of a wave in a uniform medium increases, its speed will _____.

Select the correct option

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | Increase |
| <input checked="" type="radio"/> | Remain the same |
| <input type="radio"/> | Decrease |
| <input type="radio"/> | None of these |

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Question # 9 of 10 (Start time: 09:25:10 AM, 14 June 2021)

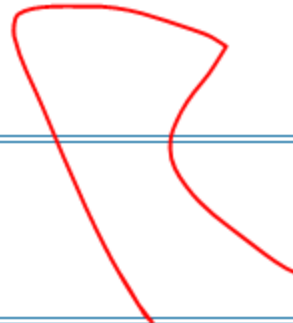
Lighter objects always reach the ground later than heavier objects.
Which is the most suitable explanation for the above statement?

- i. There are some external forces acting on the objects, for example, the air friction.
- ii. A heavier object has a larger uniform velocity when it falls freely.
- iii. A heavier object has a larger acceleration due to gravity.

Select the correct option

<input type="radio"/>	(ii) only
<input type="radio"/>	(ii) and (iii) only
<input checked="" type="radio"/>	(i) only
<input type="radio"/>	(i), (ii) and (iii)

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Question # 10 of 10 (Start time: 09:25:26 AM, 14 June 2021)

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

Select the correct option

<input type="radio"/>	anvil
<input type="radio"/>	tympanic membrane
<input type="radio"/>	pinna
<input checked="" type="radio"/>	cochlea

3rd account

Question # 1 of 10 (Start time: 10:13:04 AM, 14 June 2021)

Total Marks: 10

In each of the following two situations a source emits sound with a frequency of 1000 Hz. In situation I the source is moving at 100m/s toward an observer at rest. In situation II the observer is moving at 100m/s toward the source, which is stationary. The speed of sound is 340m/s. The frequencies heard by the observers in the two situations are:

Select the correct option

- | | |
|----------------------------------|-------------------------|
| <input type="radio"/> | I: 1294 Hz; II: 1294 Hz |
| <input checked="" type="radio"/> | I: 1417 Hz; II: 1294 Hz |
| <input type="radio"/> | I: 1417 Hz; II: 1417 Hz |
| <input type="radio"/> | I: 773 Hz; II: 706 Hz |

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Question # 2 of 10 (Start time: 10:13:25 AM, 14 June 2021)

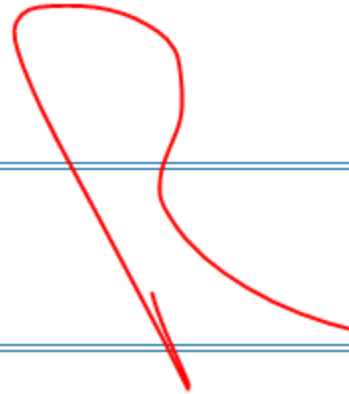
Total /

A sound wave has a wavelength of 3.0m. The distance from a compression center to the adjacent rarefaction center is:

Select the correct option

- | | |
|----------------------------------|-------------------------|
| <input type="radio"/> | 0.75m |
| <input type="radio"/> | need to know wave speed |
| <input checked="" type="radio"/> | 1.5m |
| <input type="radio"/> | 3.0m |

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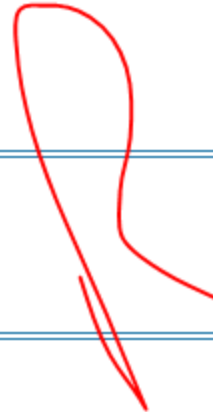
Question # 3 of 10 (Start time: 10:13:45 AM, 14 June 2021)

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

Select the correct option

- The weight of the object and the buoyant force are equal and opposite.
- 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 displaced volume of fluid is greater than the volume of the object.

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Question # 4 of 10 (Start time: 10:14:01 AM, 14 June 2021)

When the mass of the colliding body is much larger than the mass of the body at rest, its velocity after collision:

Select the correct option

<input type="radio"/>	Becomes double
<input type="radio"/>	Remains same
<input type="radio"/>	Becomes half
<input checked="" type="radio"/>	Becomes zero

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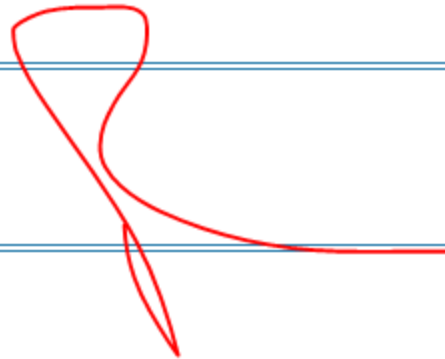
Question # 5 of 10 (Start time: 10:14:17 AM, 14 June 2021)

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

Select the correct option

<input type="radio"/>	Displacement
<input type="radio"/>	Velocity
<input checked="" type="radio"/>	Applied force
<input type="radio"/>	Acceleration

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Question # 6 of 10 (Start time: 10:14:33 AM, 14 June 2021)

Suitable units for the gravitational constant G are:

Select the correct option

- | | |
|----------------------------------|---|
| <input type="radio"/> | $\text{N}\cdot\text{s}/\text{m}$ |
| <input checked="" type="radio"/> | $\text{m}^3/(\text{kg}\cdot\text{s}^2)$ |
| <input type="radio"/> | m/s^2 |
| <input type="radio"/> | $\text{kg}\cdot\text{m}/\text{s}^2$ |

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Question # 7 of 10 (Start time: 10:14:53 AM, 14 June 2021)

Force:

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | equals the negative integral (with respect to distance) of the potential energy function |
| <input type="radio"/> | is the ability to do work |
| <input type="radio"/> | is the rate of change of doing work |
| <input checked="" type="radio"/> | equals the time rate of change of momentum |
- Riz Mughal*

Question # 8 of 10 (Start time: 10:15:09 AM, 14 June 2021)

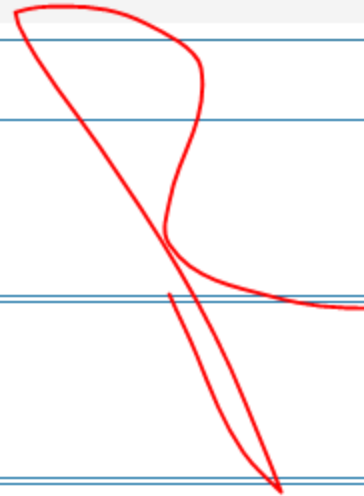
Total

A sound wave has a wavelength of 3.0m. The distance from a compression center to the adjacent rarefaction center is:

Select the correct option

- | | |
|----------------------------------|------------------------|
| <input type="radio"/> | 1.5m |
| <input checked="" type="radio"/> | 3.0m |
| <input type="radio"/> | 0.75m |
| <input type="radio"/> | need to know frequency |

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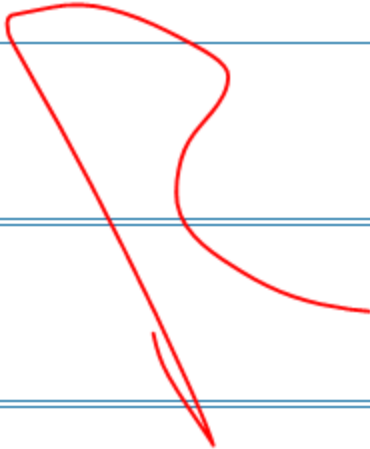


Question # 9 of 10 (Start time: 10:15:23 AM, 14 June 2021)

Total Mark

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

- | | |
|----------------------------------|--------|
| <input type="radio"/> | 0.23 m |
| <input checked="" type="radio"/> | 0.37 m |
| <input type="radio"/> | 0.53 m |
| <input type="radio"/> | 0.17 m |
- Riz Mughal*
- 

Question # 10 of 10 (Start time: 10:15:41 AM, 14 June 2021)

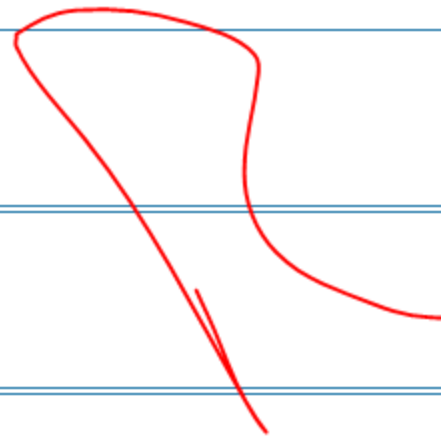
Total Marks: 10

To determine if a rigid body is in equilibrium the vector sum of the gravitational forces acting on the particles of the body can be replaced by a single force acting at:

Select the correct option

- a point on the boundary
- the geometrical center
- the center of gravity
- the center of mass

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Thank you for watching 😊

Share with your fellows

Rizwanqadeer848@gmail.com