



# PHY101 QUIZ(1)

Lecture: 1 to 15

**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.  
RIZ

**YOUTUBE:**

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

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Question # 1 of 10 ( Start time: 01:35:26 AM, 27 May 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"/>            | An inertial frame of reference  | // |
| <input checked="" type="radio"/> | An isolated system              | // |
| <input type="radio"/>            | Non-inertial frame of reference | // |
| <input type="radio"/>            | Non isolated system             | // |

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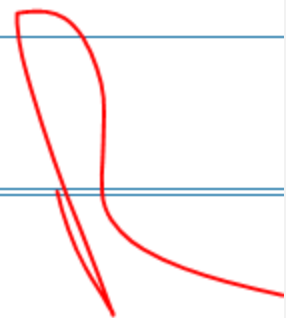
Question # 2 of 10 ( Start time: 01:35:43 AM, 27 May 2021 )

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

Select the correct option

- to make everyone rich and happy
- world dominion
- predicting natural events based on known patterns
- world peace

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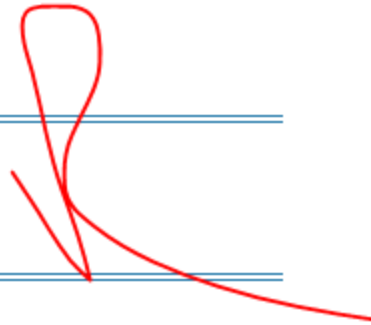
Question # 3 of 10 ( Start time: 01:36:01 AM, 27 May 2021 )

Per-second refers to the dimensions of physical quantity:

Select the correct option

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

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Question # 4 of 10 ( Start time: 01:36:14 AM, 27 May 2021 )

The unit  $\text{kg}\cdot\text{m}^2/\text{s}$  can be used for:

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Select the correct option

- |                                  |                           |
|----------------------------------|---------------------------|
| <input type="radio"/>            | rotational inertia        |
| <input type="radio"/>            | rotational kinetic energy |
| <input checked="" type="radio"/> | angular momentum          |
| <input type="radio"/>            | torque                    |

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Question # 5 of 10 ( Start time: 01:36:25 AM, 27 May 2021 )

The center of mass of Earth's atmosphere is:

Select the correct option

- near the surface of Earth
- near the center of Earth
- a little less than halfway between Earth's surface and the outer boundary of the atmosphere
- near the outer boundary of the atmosphere


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Question # 6 of 10 ( Start time: 01:36:38 AM, 27 May 2021 )

Work may be done by \_\_\_\_\_.

Select the correct option

- |                                  |  |
|----------------------------------|--|
| <input checked="" type="radio"/> | only living organisms                        |
| <input type="radio"/>            | only non-living objects                      |
| <input type="radio"/>            | both living organisms and non-living objects |
| <input type="radio"/>            | only vehicles                                |
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Question # 7 of 10 ( Start time: 01:36:51 AM, 27 May 2021 )

Total Ma

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:

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Select the correct option

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

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Question # 8 of 10 ( Start time: 01:37:05 AM, 27 May 2021 )

Whenever an object strikes a stationary object of equal mass:

Select the correct option

- |                                  |                                       |
|----------------------------------|---------------------------------------|
| <input type="radio"/>            | the first object must stop            |
| <input type="radio"/>            | the two objects cannot stick together |
| <input type="radio"/>            | the collision must be elastic         |
| <input checked="" type="radio"/> | none of these                         |

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Question # 9 of 10 ( Start time: 01:37:21 AM, 27 May 2021 )

Total Marks

A glass of water is placed on a sheet of paper. Quickly drag the sheet of paper from under the glass of water without spilling the water is due to:

Select the correct option

- Newton's third law of motion
- acceleration
- lack of friction between paper and glass
- inertia

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Question # 10 of 10 ( Start time: 01:37:37 AM, 27 May 2021 )

The dimension of Joule is:

Select the correct option

- |                                  |                                     |
|----------------------------------|-------------------------------------|
| <input checked="" type="radio"/> | [M L <sup>2</sup> T <sup>-2</sup> ] |
| <input type="radio"/>            | [M L <sup>2</sup> T <sup>-1</sup> ] |
| <input type="radio"/>            | [M L <sup>2</sup> T <sup>-3</sup> ] |
| <input type="radio"/>            | [M L <sup>1</sup> T <sup>-2</sup> ] |

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2<sup>nd</sup> account

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Question # 1 of 10 ( Start time: 01:38:37 AM, 27 May 2021 )

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

Select the correct option


- |                                  |                            |
|----------------------------------|----------------------------|
| <input type="radio"/>            | instantaneous velocity     |
| <input checked="" type="radio"/> | instantaneous acceleration |
| <input type="radio"/>            | average acceleration       |
| <input type="radio"/>            | instantaneous acceleration |
- 
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Question # 2 of 10 ( Start time: 01:38:52 AM, 27 May 2021 )

Total Ma

Ali wants to lift a mass of 7.5 kg with constant velocity by a rope that passes through a frictionless pulley which is attached to the ceiling of room. Calculate the tension in the rope by neglecting the mass of the rope.

Select the correct option

- |                                  |        |
|----------------------------------|--------|
| <input type="radio"/>            | 0.75 N |
| <input type="radio"/>            | 7.5 Kg |
| <input type="radio"/>            | 75 Kg  |
| <input checked="" type="radio"/> | 75 N   |
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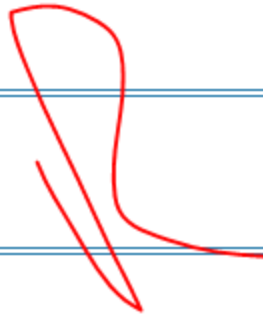
Question # 3 of 10 ( Start time: 01:39:07 AM, 27 May 2021 )

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

Select the correct option

- |                                  |                |
|----------------------------------|----------------|
| <input type="radio"/>            | become zero    |
| <input type="radio"/>            | be decreased   |
| <input type="radio"/>            | have no change |
| <input checked="" type="radio"/> | be increased   |

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Question # 4 of 10 ( Start time: 01:39:17 AM, 27 May 2021 )

A couple produces:

Select the correct option

- |                                  |                              |
|----------------------------------|------------------------------|
| <input type="radio"/>            | No motion                    |
| <input type="radio"/>            | Linear and rotational motion |
| <input checked="" type="radio"/> | Purely rotational motion     |
| <input type="radio"/>            | Purely linear motion         |

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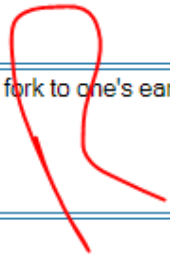
Question # 5 of 10 ( Start time: 01:39:29 AM, 27 May 2021 )

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

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Select the correct option

- 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
- Sound can travel through a vacuum





Question # 6 of 10 ( Start time: 01:39:41 AM, 27 May 2021 )

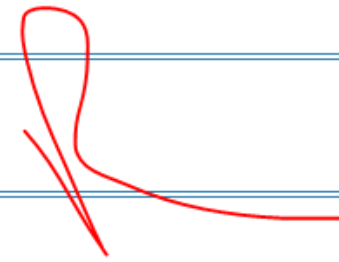
Total

Add two vectors of length 4 m & 5 m but their orientation is not known. The length after addition of these two vectors will be:

Select the correct option

- 9 m
- Less than 1 m
- between 9 m and 5
- between 9 m and 1 m

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Question # 7 of 10 ( Start time: 01:39:54 AM, 27 May 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

<input type="radio"/>	i & iii only
<input type="radio"/>	ii & iii only
<input type="radio"/>	i only
<input checked="" type="radio"/>	i, ii & iii

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Question # 8 of 10 ( Start time: 01:40:07 AM, 27 May 2021 )

To

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

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Question # 9 of 10 ( Start time: 01:40:18 AM, 27 May 2021 )

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

Select the correct option

- |                                  |                   |
|----------------------------------|-------------------|
| <input type="radio"/>            | mass              |
| <input checked="" type="radio"/> | centre of gravity |
| <input type="radio"/>            | weight            |
| <input type="radio"/>            | centre of mass    |
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Question # 10 of 10 ( Start time: 01:40:29 AM, 27 May 2021 )

Which statement is not true for acceleration?

Select the correct option

- |                                  |   |
|----------------------------------|---|
| <input checked="" type="radio"/> | riding your bike straight down the street at a constant speed |
| <input type="radio"/>            | riding your bike faster when you head down a hill             |
| <input type="radio"/>            | slowing your bike ride so you can make it up a hill           |
| <input type="radio"/>            | stopping your bike at an intersection                         |

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3<sup>rd</sup> account

Question # 1 of 10 ( Start time: 01:43:14 AM, 27 May 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"/>            | 50 NS  |
| <input checked="" type="radio"/> | 500 NS |
| <input type="radio"/>            | 200 NS |
| <input type="radio"/>            | 20 NS  |

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Question # 2 of 10 ( Start time: 01:43:26 AM, 27 May 2021 )

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

Select the correct option

- |                                  |                        |
|----------------------------------|------------------------|
| <input type="radio"/>            | unstable equilibrium   |
| <input type="radio"/>            | dynamic equilibrium    |
| <input type="radio"/>            | rotational equilibrium |
| <input checked="" type="radio"/> | stable equilibrium     |
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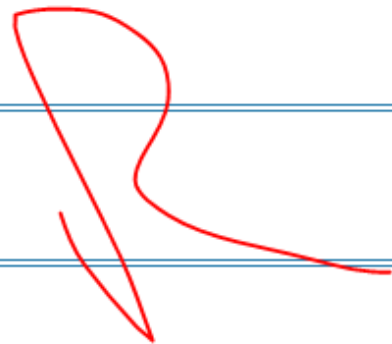
Question # 3 of 10 ( Start time: 01:43:38 AM, 27 May 2021 )

For an object in equilibrium the net torque acting on it vanishes only if each torque is calculated about:

Select the correct option

- the center of gravity
- the same point
- the center of mass
- the geometrical center

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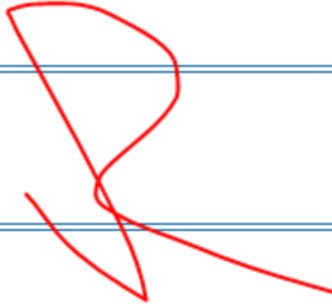
Question # 4 of 10 ( Start time: 01:43:50 AM, 27 May 2021 )

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

Select the correct option

<input checked="" type="radio"/>	Parallel
<input type="radio"/>	Anti-parallel
<input type="radio"/>	Perpendicular
<input type="radio"/>	Null

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Question # 5 of 10 ( Start time: 01:43:59 AM, 27 May 2021 )

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

Select the correct option

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

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Question # 6 of 10 ( Start time: 01:44:12 AM, 27 May 2021 )

The angular momentum vector of Earth about its rotation axis, due to its daily rotation, is directed:

Select the correct option

- |                                  |  |
|----------------------------------|--|
| <input type="radio"/>            | tangent to the equator toward the east |
| <input checked="" type="radio"/> | north                                  |
| <input type="radio"/>            | tangent to the equator toward the west |
| <input type="radio"/>            | south                                  |

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Question # 7 of 10 ( Start time: 01:44:22 AM, 27 May 2021 )

Swimming becomes possible because of:

Select the correct option

- |                                  |                      |
|----------------------------------|----------------------|
| <input checked="" type="radio"/> | Third law of motion  |
| <input type="radio"/>            | Law of torque        |
| <input type="radio"/>            | Second law of motion |
| <input type="radio"/>            | First law of motion  |

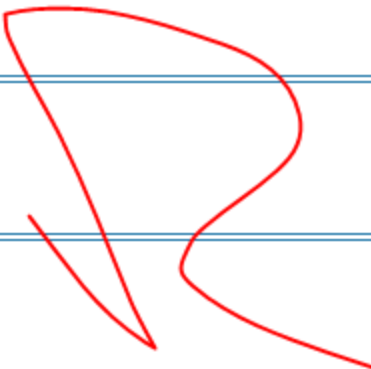
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Question # 8 of 10 ( Start time: 01:44:35 AM, 27 May 2021 )

the projectile path is known as its:

Select the correct option

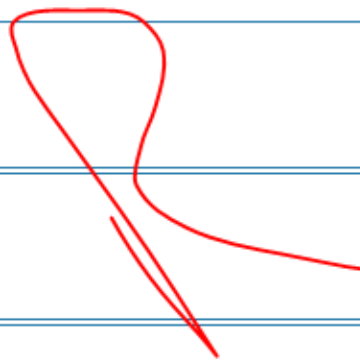
- |                                  |                |
|----------------------------------|----------------|
| <input type="radio"/>            | time of action |
| <input type="radio"/>            | range          |
| <input type="radio"/>            | curve          |
| <input checked="" type="radio"/> | trajectory     |
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- 

Question # 9 of 10 ( Start time: 01:44:46 AM, 27 May 2021 )

Total Mark

Ali wants to lift a mass of 7.5 kg with constant velocity by a rope that passes through a frictionless pulley which is attached to the ceiling of room. Calculate the tension in the rope by neglecting the mass of the rope.

Select the correct option

- |                                  |        |
|----------------------------------|--------|
| <input type="radio"/>            | 75 Kg  |
| <input checked="" type="radio"/> | 75 N   |
| <input type="radio"/>            | 0.75 N |
| <input type="radio"/>            | 7.5 Kg |
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- 

Question # 10 of 10 ( Start time: 01:44:57 AM, 27 May 2021 )

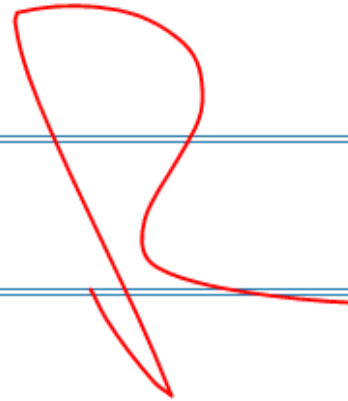
Total


A man, with his arms at his sides, is spinning on a light frictionless turntable. When he extends his arms:

Select the correct option

- |                                  |                                       |
|----------------------------------|---------------------------------------|
| <input type="radio"/>            | his angular velocity remains the same |
| <input type="radio"/>            | his angular velocity increases        |
| <input checked="" type="radio"/> | his angular momentum remains the same |
| <input type="radio"/>            | his rotational inertia decreases      |

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Thank you for watching 😊  
Share with your fellows  
[Rizwanqadeer848@gmail.com](mailto:Rizwanqadeer848@gmail.com)