

**RIZ MUGHAL**

## QUIZ MASTER

PHY101(25 TO 38)

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>

Question # 1 of 10 ( Start time: 03:00:10 PM, 28 August 2020 )

A light entering into glass prism from air does not give change in its:

Select the correct option

<input checked="" type="radio"/>	Frequency
<input type="radio"/>	Wavelength
<input type="radio"/>	Velocity
<input type="radio"/>	Direction

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R

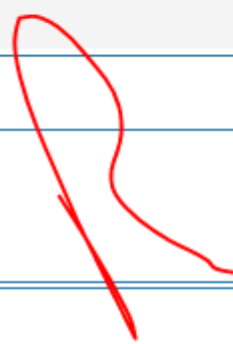
Question # 2 of 10 ( **Start time: 03:00:32 PM, 28 August 2020** )

Radio waves and light waves are \_\_\_\_\_.

Select the correct option

- |                                  |                                       |
|----------------------------------|---------------------------------------|
| <input type="radio"/>            | Longitudinal waves                    |
| <input type="radio"/>            | Transverse waves                      |
| <input checked="" type="radio"/> | Electromagnetic and transverse both   |
| <input type="radio"/>            | Electromagnetic and longitudinal both |

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## Question # 3 of 10 ( Start time: 03:00:49 PM, 28 August 2020 )

If  $I_0$  is the peak value of an AC supply, then its rms value is given as  $I_{rms}$ :

Select the correct option

- |                                  |                |
|----------------------------------|----------------|
| <input checked="" type="radio"/> | $I_0/\sqrt{2}$ |
| <input type="radio"/>            | $I_0/0.707$    |
| <input type="radio"/>            | $I_0/2$        |
| <input type="radio"/>            | $\sqrt{2} I_0$ |
- Riz Mughal*
- R*

Question # 4 of 10 ( Start time: 03:01:06 PM, 28 August 2020 )

Following are the ways by which light can interact with matter, EXCEPT:

Select the correct option

- |                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | Emission     |
| <input checked="" type="radio"/> | Interference |
| <input type="radio"/>            | Absorption   |
| <input type="radio"/>            | Transmission |

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Question # 5 of 10 ( Start time: 03:01:22 PM, 28 August 2020 )

The wavelength of red light is 700 nm. Its frequency is \_\_\_\_\_.

Select the correct option

- $4.29 \times 10^{14}$  Hertz
- $4.29 \times 10^{13}$  Hertz
- $4.29 \times 10^{15}$  Hertz
- $4.29 \times 10^{12}$  Hertz

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Question # 6 of 10 ( Start time: 03:01:38 PM, 28 August 2020 )

Total M

The Light from any ordinary source (such as a flame) is usually:

Select the correct option

- |                                  |                      |
|----------------------------------|----------------------|
| <input type="radio"/>            | Plane polarized      |
| <input type="radio"/>            | Circularly polarized |
| <input type="radio"/>            | Monochromatic        |
| <input checked="" type="radio"/> | Un-polarized         |

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Question # 7 of 10 ( Start time: 03:01:56 PM, 28 August 2020 )

Interference of light is evidence that:

Select the correct option

- |                                  |                                       |
|----------------------------------|---------------------------------------|
| <input type="radio"/>            | the speed of light is very large      |
| <input type="radio"/>            | light is a transverse wave            |
| <input checked="" type="radio"/> | light is a wave phenomenon            |
| <input type="radio"/>            | light is electromagnetic in character |

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Question # 8 of 10 ( Start time: 03:02:10 PM, 28 August 2020 )

Total M

When an object (iron/tungsten) is heated, it emits light. It emits infrared (IR) light when it is heated at a temperature \_\_\_\_\_.

Select the correct option

- |                                  |  |
|----------------------------------|--|
| <input checked="" type="radio"/> | Below 800 degree C                     |
| <input type="radio"/>            | Between 800 degree C to 1600 degree C  |
| <input type="radio"/>            | Between 1600 degree C to 2500 degree C |
| <input type="radio"/>            | above 2500 degree C                    |

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Question # 9 of 10 ( Start time: 03:02:27 PM, 28 August 2020 )

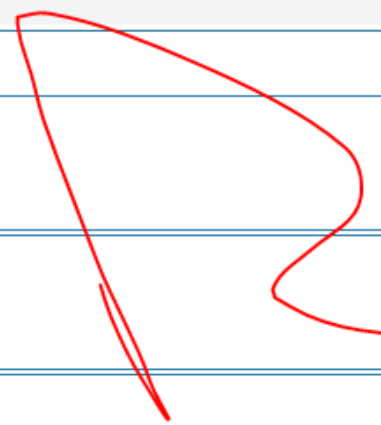
Total

The special theory of relativity is applicable to the object moving with maximum velocity equal to:

Select the correct option

- |                                  |                           |
|----------------------------------|---------------------------|
| <input checked="" type="radio"/> | Speed of light            |
| <input type="radio"/>            | More than speed of light  |
| <input type="radio"/>            | Less than speed of light  |
| <input type="radio"/>            | Double the speed of light |

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Question # 10 of 10 ( Start time: 03:02:42 PM, 28 August 2020 )

Huygens' construction can be used only:

Select the correct option

- |                                  |   |
|----------------------------------|---|
| <input type="radio"/>            | for light                                 |
| <input type="radio"/>            | for an electromagnetic wave               |
| <input type="radio"/>            | for transverse waves                      |
| <input checked="" type="radio"/> | for all of the above and other situations |

2<sup>nd</sup> account

## Question # 1 of 10 ( Start time: 03:48:35 PM, 28 August 2020 )

The total energy in an LC circuit is  $5.0 \times 10^{-6}$  J. If  $L = 25\text{mH}$  the maximum current is:

Select the correct option

- |                                  |      |
|----------------------------------|------|
| <input type="radio"/>            | 10mA |
| <input checked="" type="radio"/> | 20mA |
| <input type="radio"/>            | 14mA |
| <input type="radio"/>            | 28mA |

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Question # 2 of 10 ( Start time: 03:48:54 PM, 28 August 2020 )

Bending of light around the edges of an obstacle called:

Select the correct option

- |                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | Refraction   |
| <input type="radio"/>            | Polarization |
| <input type="radio"/>            | Interference |
| <input checked="" type="radio"/> | Diffraction  |

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Question # 3 of 10 ( Start time: 03:49:10 PM, 28 August 2020 )

In an adiabatic process:

Select the correct option

- |                                  |   |
|----------------------------------|---|
| <input type="radio"/>            | The energy absorbed as heat equals the work done by the system on its environment   |
| <input type="radio"/>            | The energy absorbed as heat equals the work done by the environment on the system   |
| <input type="radio"/>            | The absorbed as heat equals the change in internal energy                           |
| <input checked="" type="radio"/> | The work done by the environment on the system equals the change in internal energy |

PHY101:Physics (PHY101) online quiz # 3

Question # 4 of 10 ( Start time: 03:49:25 PM. 28 August 2020 )

Which method(s) of heat transfer can take place in vacuum?

Select the correct option

<input checked="" type="radio"/>	Radiation
<input type="radio"/>	Convection
<input type="radio"/>	Conduction & Convection
<input type="radio"/>	Conduction

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Question # 5 of 10 ( **Start time: 03:49:40 PM, 28 August 2020** )

When white light passes through a prism, it splits into \_\_\_\_\_ colors.

Select the correct option

- |                                  |   |
|----------------------------------|---|
| <input type="radio"/>            | 6 |
| <input checked="" type="radio"/> | 7 |
| <input type="radio"/>            | 8 |
| <input type="radio"/>            | 9 |

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Question # 6 of 10 ( Start time: 03:49:53 PM, 28 August 2020 )

which of the following is the difference between sound and light waves:


Select the correct option

- |                                  |  |
|----------------------------------|--|
| <input type="radio"/>            | sound is not subject to diffraction                        |
| <input type="radio"/>            | sound is a torsional wave rather than a longitudinal wave  |
| <input type="radio"/>            | sound does not require energy for its origin               |
| <input checked="" type="radio"/> | sound is a longitudinal wave rather than a transverse wave |

Question # 7 of 10 ( Start time: 03:50:10 PM, 28 August 2020 )

According to the kinetic theory of gases, the pressure of a gas is due to:

Select the correct option

- |                                  |   |
|----------------------------------|---|
| <input type="radio"/>            | Change of kinetic energy of molecules as they strike the wall |
| <input checked="" type="radio"/> | Change of momentum of molecules as they strike the wall       |
| <input type="radio"/>            | Average kinetic energy of the molecules                       |
| <input type="radio"/>            | Force of repulsion between the molecules                      |
- Riz Mughal*
- 

## Question # 8 of 10 ( Start time: 03:50:24 PM, 28 August 2020 )

An erect object is in front of a convex mirror a distance greater than the focal length. The image is:

Select the correct option

- |                                  |   |
|----------------------------------|---|
| <input type="radio"/>            | Real, inverted, and smaller than the object   |
| <input type="radio"/>            | Virtual, inverted, and larger than the object |
| <input type="radio"/>            | Real, inverted, and larger than the object    |
| <input checked="" type="radio"/> | Virtual, erect, and smaller than the object   |

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Question # 9 of 10 ( Start time: 03:50:41 PM, 28 August 2020 )

Total Marks: 1

In some movies, you sometimes see an actor looking in a mirror and you can see his face in the mirror. During the filming of this scene, what does the actor see in the mirror?

Select the correct option

- |                                  |                     |   |
|----------------------------------|---------------------|---|
| <input type="radio"/>            | His face            | / |
| <input type="radio"/>            | Your face           | / |
| <input checked="" type="radio"/> | The movie camera    | / |
| <input type="radio"/>            | The director's face | / |

PHY101:Physics (PHY101) online quiz # 3

Question # 10 of 10 ( Start time: 03:50:58 PM, 28 August 2020 )

In order that a single process is both isothermal and isobaric:

Select the correct option

- |                                  |   |
|----------------------------------|---|
| <input type="radio"/>            | One must use an ideal gas                       |
| <input checked="" type="radio"/> | A change of phase is essential                  |
| <input type="radio"/>            | One may use any real gas such as N <sub>2</sub> |
| <input type="radio"/>            | One must use a solid                            |

3<sup>rd</sup> account

PHY101:Physics (PHY101) online quiz # 3

Question # 1 of 10 ( Start time: 04:44:34 PM, 28 August 2020 )

There is a temperature at which the reading on the Kelvin scale is numerically:

Select the correct option

- |                                  |                                       |
|----------------------------------|---------------------------------------|
| <input type="radio"/>            | Equal to that on the Celsius scale    |
| <input type="radio"/>            | Lower than that on the Celsius scale  |
| <input checked="" type="radio"/> | Equal to that on the Fahrenheit scale |
| <input type="radio"/>            | Less than zero                        |

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PHY101:Physics (PHY101) online quiz # 3

Question # 2 of 10 ( Start time: 04:45:02 PM, 28 August 2020 )

The lenz's law refers to:

Select the correct option

<input checked="" type="radio"/>	Induced current
<input type="radio"/>	Motional emf
<input type="radio"/>	Induced potential
<input type="radio"/>	Potential difference

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PHY101:Physics (PHY101) online quiz # 3

Question # 3 of 10 ( Start time: 04:45:17 PM, 28 August 2020 )

Maximum power delivered by a battery is:

Select the correct option

- |                                  |           |
|----------------------------------|-----------|
| <input type="radio"/>            | Unlimited |
| <input type="radio"/>            | VIT       |
| <input type="radio"/>            | $4rE^*E$  |
| <input checked="" type="radio"/> | $E^*E/4r$ |

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Question # 4 of 10 ( Start time: 04:45:35 PM, 28 August 2020 )

Possible units for the coefficient of volume expansion are:

Select the correct option

- |                                  |                              |
|----------------------------------|------------------------------|
| <input type="radio"/>            | $\text{mm}^3/\text{C}^\circ$ |
| <input type="radio"/>            | $(\text{C}^\circ)^3$         |
| <input type="radio"/>            | $1/(\text{C}^\circ)^3$       |
| <input checked="" type="radio"/> | $1/\text{C}^\circ$           |

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Question # 5 of 10 ( **Start time: 04:45:50 PM, 28 August 2020** )

In constructing a thermometer it is NECESSARY to use a substance that:

Select the correct option

- |                                  |   |
|----------------------------------|---|
| <input type="radio"/>            | Expands linearly with rising temperature    |
| <input type="radio"/>            | Will not freeze                             |
| <input type="radio"/>            | Will not boil                               |
| <input checked="" type="radio"/> | Undergoes some change when heated or cooled |

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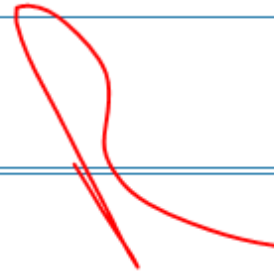
Question # 6 of 10 ( Start time: 04:46:06 PM, 28 August 2020 )

The number of turns becomes double, but length remain same, then magnetic field in the solenoid become

Select the correct option

- |                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | Zero        |
| <input type="radio"/>            | Remain same |
| <input checked="" type="radio"/> | Double      |
| <input type="radio"/>            | Half        |

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Question # 7 of 10 ( Start time: 04:46:23 PM, 28 August 2020 )

The distance between two adjacent bright fringes is:

Select the correct option

- |                                  |                |
|----------------------------------|----------------|
| <input type="radio"/>            | $L/\lambda d$  |
| <input type="radio"/>            | $d/\lambda L$  |
| <input checked="" type="radio"/> | $\lambda L/d$  |
| <input type="radio"/>            | $\lambda d /L$ |

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Question # 8 of 10 ( Start time: 04:46:37 PM, 28 August 2020 )

Which of the following waves do not travel at speed of light?

Select the correct option

- |                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | Radio waves |
| <input type="radio"/>            | Heat waves  |
| <input type="radio"/>            | X - rays    |
| <input checked="" type="radio"/> | Sound waves |

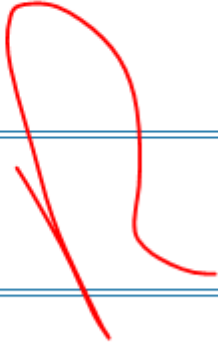
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PHY101:Physics (PHY101) online quiz # 3

Question # 9 of 10 ( Start time: 04:46:55 PM, 28 August 2020 )

In order that a single process is both isothermal and isobaric:

Select the correct option

- |                                  |   |
|----------------------------------|---|
| <input type="radio"/>            | One must use an ideal gas                       |
| <input checked="" type="radio"/> | A change of phase is essential                  |
| <input type="radio"/>            | One may use any real gas such as N <sub>2</sub> |
| <input type="radio"/>            | One must use a solid                            |
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- 

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Question # 10 of 10 ( Start time: 04:47:12 PM, 28 August 2020 )

Coherent sources of light mean \_\_\_\_\_.

Select the correct option

- |                                  |   |
|----------------------------------|---|
| <input type="radio"/>            | They must have same speeds                        |
| <input type="radio"/>            | They must have same frequency                     |
| <input type="radio"/>            | They must have same amplitude                     |
| <input checked="" type="radio"/> | They must have fixed phase relative to each other |

4<sup>th</sup> account

PHY101:Physics (PHY101) online quiz # 3

Question # 1 of 10 ( Start time: 03:09:30 PM, 29 August 2020 )

Heat has the same units as:

Select the correct option

<input type="radio"/>	Temperature
<input checked="" type="radio"/>	Work
<input type="radio"/>	Energy/time
<input type="radio"/>	Heat capacity

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Question # 2 of 10 ( Start time: 03:09:58 PM, 29 August 2020 )

Total Marks:

An LC series circuit with an inductance  $L$  and a capacitance  $C$  has an oscillation frequency  $f$ . Two inductors, each with inductance  $L$ , and two capacitors, each with capacitance  $C$ , are all wired in series and the circuit is completed. The oscillation frequency is:

Select the correct option

<input type="radio"/>	$f/4$	//
<input checked="" type="radio"/>	$f$	//
<input type="radio"/>	$2f$	//
<input type="radio"/>	$f/2$	//

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Question # 3 of 10 ( Start time: 03:10:23 PM, 29 August 2020 )

Which of the following electromagnetic radiations has photons with the greatest energy?

Select the correct option

- |                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | blue light   |
| <input type="radio"/>            | yellow light |
| <input checked="" type="radio"/> | x rays       |
| <input type="radio"/>            | radio waves  |

Click to Save

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Question # 4 of 10 ( Start time: 03:10:53 PM, 29 August 2020 )

Of the following which might NOT vanish over one cycle of a cyclic process?

Select the correct option

- |                                  |  |
|----------------------------------|--|
| <input type="radio"/>            | The change in the internal energy of the substance |
| <input type="radio"/>            | The change in pressure of the substance            |
| <input checked="" type="radio"/> | The work done by the substance                     |
| <input type="radio"/>            | The change in the temperature of the substance     |

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R

Question # 5 of 10 ( Start time: 03:11:12 PM, 29 August 2020 )

Inductive reactance  $X_L$  of an inductor is:

Select the correct option

- |                                  |             |
|----------------------------------|-------------|
| <input type="radio"/>            | $\omega L$  |
| <input type="radio"/>            | $4\omega L$ |
| <input checked="" type="radio"/> | $2\omega L$ |
| <input type="radio"/>            | $2\omega L$ |

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PHY101:Physics (PHY101) online quiz # 3

Question # 6 of 10 ( **Start time: 03:11:55 PM, 29 August 2020** )

If two objects are in thermal equilibrium with each other:

Select the correct option

- |                                  |   |
|----------------------------------|---|
| <input type="radio"/>            | They can not be moving                          |
| <input type="radio"/>            | They can not be undergoing an elastic collision |
| <input type="radio"/>            | They can not have different pressures           |
| <input checked="" type="radio"/> | They can not be at different temperatures       |

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Question # 7 of 10 ( Start time: 03:12:18 PM, 29 August 2020 )

A virtual image is one:

Select the correct option

- |                                  |  |
|----------------------------------|--|
| <input type="radio"/>            | toward which light rays converge but do not pass through |
| <input checked="" type="radio"/> | from which light rays diverge but do not pass through    |
| <input type="radio"/>            | from which light rays diverge as they pass through       |
| <input type="radio"/>            | toward which light rays converge and pass through        |
- Riz Mughal*
- 

## Question # 8 of 10 ( Start time: 03:12:40 PM, 29 August 2020 )

The reaction of an induction at 50 Hz is  $10 \Omega$ , its reactance at 100 Hz becomes:

Select the correct option

- $20 \Omega$
- $5 \Omega$
- $2.5 \Omega$
- $1 \Omega$

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R

Click to Save Answer & Move

PHY101:Physics (PHY101) online quiz # 3

Question # 9 of 10 ( Start time: 03:13:01 PM, 29 August 2020 )

The wavelength of red light is 700 nm. Its frequency is \_\_\_\_\_.

Select the correct option

- |                                  |                             |
|----------------------------------|-----------------------------|
| <input checked="" type="radio"/> | $4.29 \times 10^{14}$ Hertz |
| <input type="radio"/>            | $4.29 \times 10^{13}$ Hertz |
| <input type="radio"/>            | $4.29 \times 10^{15}$ Hertz |
| <input type="radio"/>            | $4.29 \times 10^{12}$ Hertz |

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Question # 10 of 10 ( Start time: 03:13:22 PM, 29 August 2020 )

In an adiabatic process:

Select the correct option

- |                                  |   |
|----------------------------------|---|
| <input type="radio"/>            | The energy absorbed as heat equals the work done by the system on its environment   |
| <input type="radio"/>            | The energy absorbed as heat equals the work done by the environment on the system   |
| <input type="radio"/>            | The absorbed as heat equals the change in internal energy                           |
| <input checked="" type="radio"/> | The work done by the environment on the system equals the change in internal energy |

5<sup>th</sup> account

PHY101:Physics (PHY101) online quiz # 3

Question # 1 of 10 ( Start time: 03:14:39 PM, 29 August 2020 )

Antiparticle of electron is:

Select the correct option

<input type="radio"/>	Proton
<input type="radio"/>	Photon
<input type="radio"/>	Neutron
<input checked="" type="radio"/>	Positron

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PHY101:Physics (PHY101) online quiz # 3

Question # 2 of 10 ( Start time: 03:15:04 PM, 29 August 2020 )

When we accelerate the charge, which types of waves are produced?

Select the correct option

<input type="radio"/>	Mechanical waves
<input type="radio"/>	Travelling waves
<input type="radio"/>	Stationary waves
<input checked="" type="radio"/>	Electromagnetic waves

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Question # 3 of 10 ( Start time: 03:15:22 PM, 29 August 2020 )

Total Marks

A detector is used to detect the speed of a particular wave. If the frequency of an electromagnetic signal is 400 MHz, the speed detected by detector is \_\_\_\_\_.

Select the correct option

- |                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | 300000 m/h   |
| <input checked="" type="radio"/> | 300000 km/s  |
| <input type="radio"/>            | 300000 m/min |
| <input type="radio"/>            | 300000 mm/s  |

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Question # 4 of 10 ( Start time: 03:15:43 PM, 29 August 2020 )

The two metallic strips that constitute some thermostats must differ in:

Select the correct option

<input type="radio"/>	Thickness
<input type="radio"/>	Length
<input type="radio"/>	Mass
<input type="radio"/>	Rate at which they conduct heat
<input checked="" type="radio"/>	Coefficient of linear expansion

*Riz Mughal*

PHY101:Physics (PHY101) online quiz # 3

Question # 5 of 10 ( Start time: 03:16:12 PM, 29 August 2020 )

The reaction of an induction at 50 Hz is  $10 \Omega$ , its reactance at 100 Hz becomes:

Select the correct option

- |                                  |              |
|----------------------------------|--------------|
| <input type="radio"/>            | $20 \Omega$  |
| <input checked="" type="radio"/> | $5 \Omega$   |
| <input type="radio"/>            | $2.5 \Omega$ |
| <input type="radio"/>            | $1 \Omega$   |

PHY101:Physics (PHY101) online quiz # 3

Question # 6 of 10 ( **Start time: 03:16:32 PM, 29 August 2020** )

What is the unit of magnification factor?

Select the correct option

<input type="radio"/>	meter.Kelvin
<input type="radio"/>	radian.Kelvin
<input type="radio"/>	degree.Kelvin
<input checked="" type="radio"/>	no units

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Question # 7 of 10 ( Start time: 03:17:01 PM, 29 August 2020 )

A step-down transformer is used to:

Select the correct option

- |                                  |                      |
|----------------------------------|----------------------|
| <input type="radio"/>            | increase the power   |
| <input type="radio"/>            | decrease the power   |
| <input type="radio"/>            | increase the voltage |
| <input checked="" type="radio"/> | decrease the voltage |

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## Question # 8 of 10 ( Start time: 03:17:25 PM, 29 August 2020 )

Evidence that molecules of a gas are in constant motion is:

Select the correct option

- |                                  |                                |
|----------------------------------|--------------------------------|
| <input type="radio"/>            | Winds exert pressure           |
| <input checked="" type="radio"/> | Two gases interdiffuse quickly |
| <input type="radio"/>            | Warm air rises                 |
| <input type="radio"/>            | Gases are easily compressed    |

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PHY101:Physics (PHY101) online quiz # 3

Question # 9 of 10 ( **Start time: 03:17:44 PM, 29 August 2020** )

In order that a single process is both isothermal and isobaric:

Select the correct option

- |                                  |   |
|----------------------------------|---|
| <input type="radio"/>            | One must use an ideal gas                       |
| <input checked="" type="radio"/> | A change of phase is essential                  |
| <input type="radio"/>            | One may use any real gas such as N <sub>2</sub> |
| <input type="radio"/>            | One must use a solid                            |

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Question # 10 of 10 ( Start time: 03:18:00 PM, 29 August 2020 )

Evidence that a gas consists mostly of empty space is the fact that:

Select the correct option

- |                                  |  |
|----------------------------------|--|
| <input checked="" type="radio"/> | The density of a gas becomes much greater when it is liquefied |
| <input type="radio"/>            | Gases exert pressure on the walls of their containers          |
| <input type="radio"/>            | Gases are transparent  |
| <input type="radio"/>            | Heating a gas increases the molecular motion                   |
- Riz Mughal*
- 