

7 Lecture - PHY101

Important Mcqs

Which of the following is a unit of work?

- A) Joule
- B) Watt
- C) Newton
- D) Kilogram

Answer: A) Joule

Which type of energy is possessed by an object at rest?

- A) Kinetic energy
- B) Potential energy
- C) Thermal energy
- D) Electrical energy

Answer: B) Potential energy

What is the work done on an object when a force is applied to it but it does not move?

- A) Positive work
- B) Negative work
- C) Zero work
- D) Cannot be determined

Answer: C) Zero work

A force of 10 N is applied to an object and it moves a distance of 5 m in the direction of the force. What is the work done on the object?

- A) 5 J
- B) 10 J

C) 20 J

D) 50 J

Answer: C) 20 J

Which of the following is a non-conservative force?

A) Gravitational force

B) Spring force

C) Frictional force

D) Electrostatic force

Answer: C) Frictional force

What is the difference between kinetic energy and potential energy?

A) Kinetic energy depends on the position of the object, while potential energy depends on its motion.

B) Kinetic energy is the energy possessed by an object due to its motion, while potential energy is the energy possessed by an object due to its position.

C) Kinetic energy is a conservative force, while potential energy is a non-conservative force.

D) Kinetic energy and potential energy are the same thing.

Answer: B) Kinetic energy is the energy possessed by an object due to its motion, while potential energy is the energy possessed by an object due to its position.

What is the unit of power?

A) Joule

B) Watt

C) Newton

D) Kilogram

Answer: B) Watt

What is the law of conservation of energy?

A) Energy can be created but not destroyed.

B) Energy can be destroyed but not created.

C) Energy can neither be created nor destroyed, only transformed from one form to another.

D) Energy is only conserved in closed systems.

Answer: C) Energy can neither be created nor destroyed, only transformed from one form to another.

A body of mass 2 kg is moving with a velocity of 5 m/s. What is its kinetic energy?

A) 12.5 J

B) 25 J

C) 50 J

D) 125 J

Answer: B) 25 J

A force of 20 N is applied to an object which moves a distance of 2 m against a frictional force of 5 N. What is the net work done on the object?

A) 10 J

B) 30 J

C) 40 J

D) 60 J

Answer: B) 30 J