Grade:VII PHYSICS

Time: 2 hours Assessment-I MM :35

Section-A (Attempt all questions)

1) Fill in the blanks:

1) The capacity of a body to do work is called its _____.

2) In the production of hydroelectricity _____ energy is converted into kinetic and then to electrical energy.

3) A motion which repeats itself after a fixed interval of time is called _____ motion.

4) _____ is the product of mass & gravity.

5) kg per m cube is the SI unit of _____.

6) Space available in a container is called its _____.

7) Joule is another name of SI unit of _____.

8) In microphone, _____ energy is converted into _____ energy.

II) True/False:

1) Energy can neither be created nor destroyed but can only change its form.

2) A water bottle lying on a table has no energy.

3) Weight varies from place to place but mass does not.

4) Kilometre is a unit of area.

5) Density is defined as the ratio of the mass of a body to its volume.

6) When a body completes one revolution, the displacement of the body is zero.

7) Work done = mass ÷ distance.

III) Multiple choice questions:

1) The energy stored in an electric cell is

a) Chemical energy

b) Electrical energy

c) Heat energy

d) Mechanical energy

2) The correct statement is -

a) Potential energy of a body is due to its motion

b) Kinetic energy of a body is due to its position or state

c) Kinetic energy can change into potential energy, but potential energy cannot change into kinetic energy.

d) Both work and energy have the same units

3) The SI unit of work is:

a) dyne

b) joule

c) erg

d) watt

4) Name the type of energy possessed by the compressed spring.

a) Kinetic energy

b) Potential energy

c) Mechanical energy

d) None of these

5) The motion of a car on a straight road is

a) vibratory motion

b) curvilinear

c) rectilinear motion

d) uniform motion

6) Motion of an electric bill is a combination of _____motion

a) vibratory and oscillation

b) translatory and rotatory

c) rotatory and vibration

d) translatory and vibration

7) Driving a car.

a) Heat energy is converted into mechanical energy

b) Chemical energy is converted into mechanical energy

c) Mechanical energy is converted into kinetic energy

d) None of these

8) Density depend upon which factors

a) Temperature

b) Pressure

c) temperature and pressure both

d) none of these

IV) Match the Following:

Column A	-	Column B
1. Volume	-	a. area
2. 'Are' is a unit of	-	b. electrical into mechanical energy
3. Curvilinear	-	c. cm^{-3}
4. Voltmeter	-	d. nuclear energy
5. The sun	-	e. Javelin thrown in the air

V) Write a short note on production of hydroelectricity.

OR

Describe a method to approximate the area of an irregular body.

Section B

Answers the following questions (Attempt any Four questions)

Q1) a) Calculate the density of a liquid with mass of 140 g and a volume of 35 ml.

b) Why rest and motion are called relative terms?

Q2) a) Energy is inter convertible. Give example.

b) Find the volume that 35.2 g of carbon tetrachloride (CCL_4) will occupy if it has a density of 1.60 g mL^{-1}.

Q3) a) Displacement can be zero but distance cannot. Why?

b) What is mechanical energy? What are its different forms?

Q4) a) Distinguish between mass and weight.

b) What is uniform motion?

Q5) a) Distinguish between kinetic energy and potential energy.

b) State law of conservation of energy? Discuss how it works in case of a simple pendulum

Q6) a) A cyclist covers a distance of 35 km. in 2 hours. Calculate his speed.

Identify the types of motion in the following:

i) A basket ball thrown towards a basket ball.

ii) Motion of potter's a wheel

iii) Motion of the string of a guitar.

iv) Swing.