

# Chapter 3: Energy

## Worksheet 1

### 1. Write T for true and F for false statement.

- (i) The capacity of doing works is called energy.
- (ii) 1 calorie is equal to 4.186 joule.
- (iii) The energy of an object depends on its mass and its height from the surface of the earth.
- (iv) Energy possessed by an object in motion is called potential energy.
- (v) A cell phone transforms electrical energy into sound and light energy .

### 2. Match the columns.

#### Column A

- (i) Chemical energy
- (ii) Magnetic energy
- (iii) Electrical energy
- (iv) Light energy
- (v) Sound energy

#### Column B

- (a) Coolers
- (b) Laser light
- (c) A firecracker
- (d) Drum
- (e) Speakers

### 3. Tick the odd one out.

- (i) Electric heater, electric iron, table fan, geyser
- (ii) Electric bulbs, tubes, CFLs, solar cookers
- (iii) Coal, wood, kerosene, electric bell
- (iv) Mechanical energy, potential energy, kinetic energy, muscular energy
- (v) Kilocalorie, calorie, joule, newton

### 4. Answer the following questions.

- (i) What is meant by kinetic energy?
- (ii) Name the process of changing energy from one form to another form.
- (iii) What is the law of conservation of energy?
- (iv) Which transforms sound energy into electrical energy?
- (v) Which energy is also called thermal energy?

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### Worksheet 2

#### 1. Fill in the blanks.

- (i) Potential energy,  $PE = m \times g \times$  \_\_\_\_\_.
- (ii) The SI unit of energy is \_\_\_\_\_.
- (iii) An object placed at height possesses \_\_\_\_\_ potential energy due to its position.
- (iv) Greater the speed of an object, greater the \_\_\_\_\_ energy possessed by it.
- (v) A coolie carrying heavy loads possesses \_\_\_\_\_ energy.

#### 2. Define the following.

- (i) One calorie
- (ii) Elastic potential energy
- (iii) Nuclear energy
- (iv) Solar energy
- (v) Magnetic energy

#### 3. Name the following.

- (i) The electricity generated through flowing water.
- (ii) This transforms nuclear energy into electrical energy.
- (iii) This energy enables us to see the objects.
- (iv) This energy causes the sensation of hearing.
- (v) This energy is used in an electromagnetic crane to lift heavy loads of iron and steel.

#### 4. Answer the following questions.

- (i) How can we say that a weightlifter possesses energy?
- (ii) Mention two examples of kinetic energy.
- (iii) Which form of energy gives the sensation of warmth?
- (iv) Which transforms electrical energy into magnetic energy?
- (v) Name the energy radiated by the sun.