

**ICSE Board**  
**Class VI Physics**  
**Sample Paper – 5**

**Time: 2 hrs**

**Total Marks: 75**

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**General Instructions:**

1. *All questions are **compulsory**.*
  2. *Questions 1 to 15 carry one mark each.*
  3. *Questions in 2 A and B carry one mark each.*
  4. *Questions in 3 A carry one mark each and 3 B carries 5 marks.*
  5. *Question 4 carries 5 marks each.*
  6. *Questions in 5 A and B carry one mark each.*
  7. *Questions in 6 A and B carry five mark each.*
  8. *Question 7 A and 7 B carry five marks.*
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**Question 1**

Choose the correct answer out of the four available choices given under each question. [15]

1. 1 J is the energy required to do \_\_\_\_ of work.  
(a) 1 N  
(b) 1 J  
(c) 9.8 N  
(d) 98 J
2. When you stop pedalling a bicycle, it eventually comes to a stop. Which type of force is involved in this process?  
(a) Magnetic force  
(b) Electric force  
(c) Frictional force  
(d) All of the above
3. Which out of the following is the biggest unit of measuring time?  
(a) Second  
(b) Year  
(c) Day  
(d) Hour

4. The Earth behaves like a huge bar magnet with its Magnetic North Pole situated near the
  - (a) Geographical North Pole
  - (b) Geographical South Pole
  - (c) Geographical West Pole
  - (d) Geographical East Pole
5. Name the machine which is used to change the direction of force applied.
  - (a) A movable pulley
  - (b) Gear system or class III lever
  - (c) Single fixed pulley
  - (d) Inclined plane
6. When the force remains constant and the area is less, the pressure will
  - (a) Increase
  - (b) Decrease
  - (c) First increase then decrease
  - (d) First decrease then increase
7. Work is said to be done if
  - (a) A body moves
  - (b) A force is applied which brings about motion
  - (c) A force is applied but no motion is produced
  - (d) None of the above
8. Wheels reduce friction by
  - (a) reducing the amount of sliding by rolling
  - (b) reducing the amount of sliding friction through lubrication
  - (c) reducing the amount of unevenness of the surface
  - (d) increasing the surface area
9. Which of the following is not a function of a machine?
  - (a) To make our work convenient
  - (b) To enable us to lift more load with less force
  - (c) To enable us to make measurements correctly
  - (d) To make our work faster
10. Which of the following is the best estimate in metres of the height of a mountain?
  - (a) 1 m
  - (b) 1 km
  - (c) 100 m
  - (d) 1 mm

- 11.** The ultimate source of all energy is
- (a) Petroleum
  - (b) Coal
  - (c) Sun
  - (d) Wind
- 12.** The proper care and maintenance of machines required
- (a) To make them good looking
  - (b) To preserve them for the future
  - (c) For their efficient and longer use
  - (d) None of the above
- 13.** Which of the following is not an example of the force of gravity?
- (a) A leaf falling from a tree
  - (b) A boy pushing a cart on a level plane
  - (c) A diver jumping into a swimming pool
  - (d) A stone falling from the top of the tower
- 14.** Magnetic poles always exist as
- (a) Dipoles
  - (b) Monopole
  - (c) No-pole
  - (d) None of the above
- 15.** The unit of weight in the S.I. system is
- (a) kilogram
  - (b) Newton
  - (c) gram
  - (d) metre/second

### Question 2

(A) Name the following. [5]

1. The load between the effort and the fulcrum.
2. A fixed quantity which is accepted as a standard by people all over the world.
3. Unit of force.
4. The frictional force that comes into action when a roller rolls over a surface.
5. Force applied to a machine to do mechanical work.

(B) Fill in the blanks. [5]

1. Length of a curved line can be measured with the help of a \_\_\_\_\_ or a \_\_\_\_\_.
2. \_\_\_\_\_ is the force of one Newton exerted over an area of one square metre.
3. The pulley changes the \_\_\_\_\_ of force.
4. Magnetic force is \_\_\_\_\_ in the middle of a magnet.
5. The upper fixed point of a Celsius thermometer is \_\_\_\_\_.

### Question 3

(A) Match the following. [5]

Column A	Column B
1. Electrical cell	a. Temporary magnet
2. Energy possessed by a stretched spring	b. Heat energy
3. Detection of charge	c. Chemical energy
4. Rubbing your palms together quickly	d. Mechanical energy
5. Soft iron	e. Electroscope

(B) Correct the following sentences. [5]

1. A beam balance is a lever of the second type.
2. The device used to measure the temperature of a body is called a barometer.
3. A loudspeaker converts sound energy to electrical energy.
4. Area is the amount of space occupied by an object.
5. Magnetic force always causes attraction.

### Question 4

(A) Write a short note on wedge and pulley. [5]

(B) [5]

1. Is force a scalar or a vector quantity?
2. What is the S.I. unit of work? Define it.
3. What conditions determine the class of a lever?
4. What do you understand by the term estimation?
5. What is static electric force? How is it created?

**Question 5**

**(A)** Answer in one sentence: [5]

1. Define: Area
2. Give one practical use of a lever.
3. What would cause more friction—a rough surface or a smooth surface?
4. What is pressure?
5. Give three names of devices developed by man to use solar energy.

**(B)** Find the odd one out. [5]

1. Measuring tape, measuring flask, measuring cylinder, burette
2. Loudspeaker, microphone, electric bell, stereo system
3. Ramp, revolving staircase, wheel, wooden plane
4. Wound-up spring, stretched bow, stone lying on the roof, moving car
5. Square metre, hectare, square kilometre and litre

**Question 6**

**(A)** With the help of diagrams, demonstrate the differences between I, II and III classes of levers.

[5]

**(B)** Define the following. [5]

1. Properties of friction
2. Wedge
3. Physical quantity
4. Magnetic field
5. Output or output energy

**Question 7**

**(A)** Answer the following.

1. If you jerk a piece of paper from under a book quickly enough, the book does not move. Why? [1]
2. State the effects which a force can produce. [4]

**(B)** Differentiate between temporary magnet and permanent magnet? [5]