

ICSE Board
Class VI Physics
Sample Paper – 3

Time: 2 hrs

Total Marks: 75

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.*
-

Question 1

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

1. Water stored at a height in a dam possesses
 - (a) Chemical energy
 - (b) Kinetic energy
 - (c) Potential energy
 - (d) Heat energy
2. A 500 kg cloth bag is pulled along a smooth plane 6 m long, to a platform 4 m above the ground. The work done is: (Take $g = 10 \text{ ms}^{-2}$)
 - (a) $2 \times 10^2 \text{J}$
 - (b) $2 \times 10^3 \text{J}$
 - (c) $2 \times 10^4 \text{J}$
 - (d) $2 \times 10^5 \text{J}$
3. A curved surface can be measured with the help of a
 - (a) Thread or divider
 - (b) Scale rod
 - (c) Metre rod
 - (d) None of the above

4. The attraction of iron filings to the poles of a magnet is
 - (a) Maximum
 - (b) Zero
 - (c) Medium
 - (d) Minimum
5. The moving parts of machines should be
 - (a) Painted
 - (b) Lubricated
 - (c) Covered
 - (d) None of the above
6. When more than one force acts on an object, the effect on the object is a result of the _____ force acting on it.
 - (a) Stronger
 - (b) Weaker
 - (c) Net
 - (d) Average
7. Players use _____ force by moving their own limbs.
 - (a) Muscular
 - (b) Magnetic
 - (c) Friction
 - (d) Gravitational
8. One Pascal is the pressure generated by a force of
 - (a) 1 N or 1 m²
 - (b) 1 kgf on 1 m²
 - (c) 1 N on 1000 cm²
 - (d) 1 N on 1 cm²
9. A staircase is an example of a/an
 - (a) Lever
 - (b) Wedge
 - (c) Inclined plane
 - (d) Wheel and axle
10. Time period of a simple pendulum depends upon the
 - (a) Length of the pendulum
 - (b) Weight of bob
 - (c) Both (a) and (b)
 - (d) None of the above

- 11.** Sportsmen use shoes with spikes
- (a) To increase friction
 - (b) To decrease friction
 - (c) To give a smart look
 - (d) To control speed
- 12.** The force acting on a unit area of a surface is called
- (a) Temperature
 - (b) Pressure
 - (c) Friction
 - (d) Magnitude
- 13.** What is another name/s for non-contact force?
- (a) Action-at-a-distance
 - (b) Force of nature
 - (c) Operator force
 - (d) All of the above
- 14.** Artificial magnet used in the laboratory to detect direction is a
- (a) Horseshoe magnet
 - (b) U-shaped magnet
 - (c) Bar magnet
 - (d) Magnetic needle
- 15.** Magnetic force is always a
- (a) Contact force
 - (b) Non-contact force
 - (c) Attractive force
 - (d) Repulsive force

Question 2

(A) Name the following. [5]

1. A quantity which can be measured.
2. A self adjusting force.
3. Energy possessed by objects due to their motion.
4. The ratio of the useful work done by the machine to the work done on the machine.
5. Force acting per unit area.

(B) Fill in the blanks. [5]

1. Mass is a measure of _____ contained.
2. _____ is a force which makes an object slow down when it rubs against another object.
3. _____ is the capacity or ability to do work.
4. In machines, ball bearings and roller bearings are used to _____ friction.
5. Magnetic poles cannot be _____. They can exist only in pair.

Question 3

(A) Match the following. [5]

Column A	Column B
1. Steel	a. Gravitational force
2. Mass	b. Class I lever
3. Force acting due to the Earth on a body	c. Celsius
4. Seesaw	d. Permanent magnet
5. Temperature	e. kilogram

(B) Correct the following sentences. [5]

1. The S.I. unit of time is minute.
2. Pressure is inversely proportional to thrust.
3. Magnetic force is an example of contact force.
4. A falling stone converts kinetic energy to potential energy.
5. On rubbing a glass rod with silk cloth, electrons move from the silk to the glass rod, thereby the glass rod gets negatively charged and the silk cloth gets positively charged.

Question 4

(A) Define: [5]

1. One metre.
2. One kilogram.
3. Surface area.

(B) Write a short note on magnetic energy. [5]

Question 5

(A) Answer in one sentence: [5]

1. What is 1 square metre area?
2. Define the term: Poles of a magnet
3. Give one advantage of using a pulley.
4. Name any three types of forces.
5. What is energy?

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

1. Horse-shoe magnet, U-shaped magnet, lodestone, bar magnet, cylindrical magnet
2. Muscular force, magnetic force, gravitational force, electrostatic force
3. Aeroplane, bird, lion, fish, submarine
4. Coal, kerosene, petrol, solar cell
5. Metre, second, hour, century

Question 6

(A) What is a thermometer? Explain with the help of a diagram. [5]

(B) Define the following. [5]

1. Ideal machine
2. Mass
3. Magnetic compass
4. Pressure
5. Rolling friction

Question 7

(A) Answer the following.

1. Why is a machine not 100% efficient? [2]
2. Which things will you keep in mind while measuring the length of any object? [3]

(B) Answer the following.

1. State the energy changes in the following cases: [2]
 - (a) Rubbing of palms
 - (b) Burning of kerosene
 - (c) Steam engine
 - (d) D.C. motor
2. State three functions of a machine with example? [3]