U. S. OSTWAL INTERNATIONAL SCHOOL

OSTWAL WONDER CITY, BOISAR (E)

TERM – 1 (2023-24)

Name : _____   Date: _____

Roll no. _____   Marks: 60

Grade : VIII   Time : 2 hr 30 min

Subject : Physics

General Instructions:

- **All questions are compulsory**
- **Do not write the questions. Directly write the answers.**
- **Write the paper neatly. Reading time: 15 minutes.**

Q.1) Fill in the blanks.   (06)

1) It is easier to open a nut using a spanner of _____ handle.
2) A _____ seeks its own level.
3) A denser liquid exerts _____ pressure.
4) Work is said to be done when a _____ moves a body in its own direction.
5) If force causes zero displacement, then work done is _____ .
6) When work is done by a body, it loses _____ .

Q.2) Choose the correct answer.   (06).

1) Pressure is **exerted by** _____.
   a) Solids   b) liquids and gases   c) both (a) and (b)   d) none of these
2) The magnitude of pressure depends upon _____.
   a) Area of contact   b) force applied   c) both (a) and (b)   d) none of these
3) _____ is inversely proportional to the area of contact
   a) Force   b) pressure   c) energy   d) velocity
4) The SI unit of energy is _____.
   a) Newton   b) newton / metre   c) joule   newton metre2
5) In washing machine, the electrical energy is converted into _____
   a) mechanical energy b) sound energy   c) kinetic energy   d) chemical energy
6) If the mass of the body is halved, its potential energy becomes _____
   a) half   b) double   c) four times   d) one fourth

Q. 3) Write (T) for true and (F) for false statements.   (06)

1. Work and energy are two independent terms.   _____
2. Kinetic energy of a body is the energy possessed due to its position.   _____
3. Roller coaster ride is an example of energy transformation.   _____
4. Kilogram force is a bigger unit of force then newton.   _____
5. A truck has six to eight tyres to increase the pressure.   _____
6. The moment of force gives us the turning effect of force   _____

Q.4 Match the columns. (05)

Column A	Column B
1. Zero work done	a) water stored in dam
2. Kinetic energy	b) A freely falling body
3. Elastic potential energy	c) A man pushing a wall
4. Gravitational potential energy	d) Moving wind
5. Energy transformation	e) Stretched rubber band

Q.5) Answer in shorts . (Any 5) *(10)*

1) List a few effects of force.

2) Why is it easier to hammer a sharp nail respective to a blunt nail ?

3) Write the factor on which liquid pressure depends.

4) Define one joule of energy .

5) Name the factors on which the kinetic energy depends.

6) How do you define power in terms of energy?

Q.6 Explain the following terms. (Any 2) (06)
1) Work
2)Force
3) Pressure

Q.7 Differentiate between the following. (Any 2) (06)
1. Force and moment of force
2. Thrust and pressure
3. Work and energy

Q. 8 Give reasons for the following statements. (Any 5) (10)

1. A coolie places a cloth pad on his head when carrying heavy loads.
2. A balloon grows in size when air is blown in it.
3. A lizard is able to walk on walls easily.
4. Your mother asks you to eat food every day.
5. Boys after playing football get very tired.
6. The power of an air conditioner is greater than a fan.

Q.9 Solve the following numerical. (Any 2) (05)

1. A wooden box of weight 140 N is kept on a table. The area of cross – section of the box is 5 m2 Calculate the pressure exerted by the box on the table.
2. A force of 60 N acts on a body having an area of cross – section 5 m2. Calculate the pressure exerted by the body.
3. Find the work done by a women who applies a force of 13 N to displace a table through a distance of 9 m in the direction of force.

ALL THE BEST