



FUSCO'S SCHOOL (ICSE)

Indiranagar , Bangalore

ANNUAL EXAMINATION 2016-2017

Subject: PHYSICS

Class :VI

Marks:80

I. Fill in the blanks

(10X1=10)

1. A ____ (scissor/ stair case) is an example of an inclined plane
2. A crowbar is a lever of ____ (first/third) order
3. In class one lever ____ (load/ fulcrum) is in between load and effort
4. ____ (repulsion/ attraction) is the surest test of magnetism
5. Permanent magnets are made of ____ (steel / soft iron)
6. The two ends of a magnet are called ____ (equator/ poles)
7. The magnetic force is ____ (minimum/ maximum) at the poles of a magnet
8. An electro magnet is an ____ (artificial/ natural) magnet.
9. The space around a magnet where its effect can be detected is called its (gravitational/ magnetic) field.
10. It is ____ (easier/ difficult) to climb a gentle slope than a steep slope.

II) Match the following

[5]

- | | | |
|-------------------|---|----------------------|
| a. Inclined plane | - | mechanical advantage |
| b. Wedge | - | class 2 lever |
| c. Wheel and axle | - | ramp |
| d. Bottle opener | - | knife |
| e. Load/effort | - | screw driver |

III. Name the following

[5]

- a. The perpendicular force acting on a surface
- b. The energy obtained from the burning of wood
- c. A force with which a body is attracted towards the centre of the earth
- d. A force that magnet exerts on iron
- e. Materials which are attracted by a magnet

III. Define the following

[10]

1. energy
2. mass
3. weight
4. frictional force
5. force
6. mechanical advantage
7. load
8. effort
9. fulcrum
10. efficiency

IV. Differentiate between the following

[10]

1. Potential energy and kinetic energy
2. Natural and artificial magnet
3. Frictional force and gravitational force
4. Sliding friction and rolling friction
5. Renewable and non-renewable sources of energy

V. Draw the diagrams of the following

(5x2=10)

1. Single fixed pulley
2. Combination of a fixed and movable pulleys
3. Bar magnet
4. Horse shoe magnet
5. Lever of the third order

VI. Give reason

(5 X 2=10)

1. A small table tennis ball and a cricket ball are moving with the same velocity which one will have more kinetic energy why?
2. Why is it difficult to cut vegetables with butter knife?
3. Why is a hill road built with a gradual slope?
4. A freely suspended bar magnet comes to rest in north-south directions.
5. Why do cars and aeroplanes have stream lined bodies?

VII. Answer the following

(5X2=10)

1. Give an example in which no work is done, inspite of the fact that a force acts on the body.
2. What do you mean by transformation of energy give two examples?
3. Which type of lever is a force multiplier. Give two examples
4. State the four properties of a magnet
5. What is the principle of a lever.

VIII. Solve

(5x2=10)

1. A man weighing 1500N exert a pressure of 100N/m² on the ground. Calculate his area of contact with the ground
2. The mechanical advantage of a machine is 4. Calculate the force required to lift a load of 100N.
3. 20N effort is required to lift a stone of weight 120N . find the mechanical advantage.
4. Calculate the work done when a force 100N displaces a body by 10m in the direction of the force applied.
5. Calculate the potential energy when a load of 5kg is lifted to a height of 10m from the ground (g=10m/s²).
