



FUSCO'S SCHOOL (ICSE)

Indiranagar , Bangalore

ANNUAL EXAMINATION 2016-2017

Subject: PHYSICS

Class :VIII

Marks:80

SECTION-A [40 Marks]

[Attempt all the questions. Each question carries two marks]

I. a. Define the term Fundamental quantities and Derived quantities.

b. Name the three fundamental quantities and their SI units.

c. Complete the following

1. $1\text{g} = \text{---} \text{kg}$

2. $1\text{ quintal} = \text{---} \text{kg}$

d. Write the desired units of the following

1. speed 2. Force 3. Work 4. Pressure

e. Name the physical quantities related to the following units.

1, Newton 2. Joule 3. Pascal 4. Watt

II. a. The year 2016 will have February of 29 days. Is this statement true. Give reason

b. Name two units of length which are bigger than a metre. How are they related to the metre.

c. State any two uses of a vernier callipers.

d. Name the instrument which can measure accurately the following

1. The diameter of a needle

2. The internal diameter of the neck of the water bottle

e. When is a vernier calipers said to be free from zero error?

III. a. What does the slope of velocity – time graph represent

b. Define

1. Contact force

2. Non-contact force

c. A ball is hanging by a string from the ceiling of a room. Draw a neat labeled diagram showing the forces acting on the ball and the string.

d. State Newton's first law of motion

e. Give one example for Newton's third law of motion

- IV . a. Define linear momentum
 b. Name the SI unit of force and define it
 c. Differentiate between mass and weight
 d. State Archimedes principle
 e. Define buoyant force

SECTION-B [40 Marks]

[Attempt all the questions]

- V. a. Name the factors on which the time period of a simple pendulum depends on (3)
 b. Draw a neat diagram of a simple pendulum. Show on it the effective length of the pendulum and its one oscillation (3)
 c. Define the terms 1. Oscillation 2. Amplitude 3. Frequency and 4. Time period as related to a simple pendulum (4)

VI.a. The pitch of a screw gauge is 1mm and there are 100 divisions on the circular head. While measuring the diameter of a wire, the main scale reads 4mm and the 50th division is in line with the base line. Find the diameter of the wire. Assume that the screw gauge is free from zero error. (3)

- b. What do you mean by zero error of a screw gauge?
 Explain its types with the help of diagrams (3)
 c. Draw a neat labeled diagram of a screw gauge and mention all its parts. (4)

- VII. a. Name the instrument which has the least count
 1) 0.1mm 2) 1mm 3) 0.01mm (3)
 b. State Newton's second law of motion and prove that $F = ma$ (3)
 c. Draw the graphs and what can you say about the nature of motion of a body if its displacement - time graph is (4)

1. A straight line parallel to the time axis?
2. A straight line inclined to the time axis with an acute angle
3. A straight line inclined to the time axis with an obtuse angle?
4. A curve

- VIII. a. i. State pascals law
 ii. Name two applications of pascals law (3)
 b. i. Pressure at depth h in a liquid of density p is (3)
 ii. A dam had broader walls at the bottom than at the top give reason (3)
 c. Draw a neat labeled diagram of hydraulic jack (4)