

## CHAPTER-2

## PHYSICAL QUANTITIES AND MEASUREMENT

## ONE MARK QUESTIONS (EASY LEVEL)

1) Write true or false for each statement :

- (a) S.I. unit of temperature is fahrenheit.
- (b) Every measurement involves two things - a number and a unit.
- (c) Mass is the measure of quantity of matter.
- (d) The S.I. unit of time is hour.
- (e) The area can be expressed as the product of length of two sides.

2. Fill in the blanks .

- (a) The S.I. unit of length is \_\_\_\_\_ of time is \_\_\_\_\_ of mass is \_\_\_\_\_.
- (b)  $^{\circ}\text{C}$  is the unit of \_\_\_\_\_.
- (c) 1 metre tonne = \_\_\_\_\_.
- (d) The zero mark in Celsius thermometer is the melting point of \_\_\_\_\_.
- (e) The thermometer used to measure the human body is called the \_\_\_\_\_ thermometer.
- (f) The normal temperature of human body is \_\_\_\_\_  $^{\circ}\text{C}$  or, \_\_\_\_\_  $^{\circ}\text{F}$ .
- (g) The \_\_\_\_\_ of an object is measured with the help of a beam balance.

3. Match the following columns :

Column A	Column B
(a) Length of a housing plot	(i) Clock
(b) Breadth of a book	(ii) Beam balance
(c) Mass of an apple	(iii) Thermometer
(d) Period of time for study	(iv) Measuring tape
(e) Temperature of a body	(v) Graph paper
(f) Surface area of a leaf	(vi) Metre ruler

## MCQ( EASY LEVEL)

Select the correct alternative

1. The symbol of degree celsius is

- a. °C
- b. °F
- c. K
- d. °K

2. 10mm is equal to

- a. 1cm
- b. 1m
- c. 10dm
- d. 10cm

3. The amount of surface occupied by an object is called its

- a. Volume
- b. Area
- c. Mass
- d. Length

4. A metre ruler is graduated in

- a. M
- b. Cm
- c. Mm
- d. Km

5. A thermometre is graduated in

- a. Kelvin
- b. °C
- c. G
- d. Cm

## 2 MARK QUESTIONS (MEDIUM LEVEL)

1. State two characteristics of a unit.
2. What is measurement? How is a measurement expressed?
3. Name four basic measurements in our daily life .
4. What are the S.I. units of
  - a. mass
  - b. length
  - c. time and
  - d. temperature.

Write their names and symbols.

5. Define one metre, the S.I. unit of length. State its one multiple and one sub multiple.
6. Convert the following quantities as indicated :
  - (a) 12inch = ft
  - (b) 1ft = cm
  - (c) 20cm = m
  - (d) 4.2m = cm
7. Convert the following quantities as indicated :
  - (a) 200 kg = .....metric tonne
  - (b) 150 kg = .....quintal
  - (c) 10lb = ..... kg
  - (d) 250 g = ..... kg
8. Name and define the S.I. unit of time. How is it related to (i) minute (ii) hour
9. Name and define the S.I. unit of time. How is it related to (i) day and (ii) year?
10. Name two devices used to measure the short time interval of an event.

### 3 MARKS QUESTIONS (MEDIUM LEVEL)

1. Convert the following quantities as indicated :
  - (a) 12inch = ft
  - (b) 1ft = cm
  - (c) 20cm = m
  - (d) 4.2m = cm
  - (e) 0.2km = m
  - (f) 0.2cm = mm
2. Describe in steps how would you measure the length of a pencil using a metre rule. Draw a diagram if necessary.
  - (b) Explain with an example how you you will use the metre ruler in part (a) if the ends of ruler are broken.
3. Name the device which you will use to measure the perimeter of your play ground. Describe in steps how you will use it.
4. Define mass. State its (1) S.I. (2) C.GS and (3) E.P.S units. How are they related?
5. Convert the following quantities as indicated:
  - (a) 200 kg = .....metric tonne
  - (b) 150 kg = .....quintal
  - (c) 10lb = ..... kg
  - (d) 250 g = ..... kg
  - (e) 0.01 kg = ..... g
  - (f) 5mg = ..... kg

6. Define one kilogram, the S.I. unit of mass. How is it related to (i) quintal (ii) metric tonne and (iii) gram?
7. Name and define the S.I. unit of time. How is it related to (i) minute (ii) hour, (iii) day and (iv) year?
8. Name the S.I. unit and one common unit of temperature. Write their symbols also.
9. Name the instrument used for measuring of the temperature of a person. Draw its labeled neat diagram.
10. What is a clinical thermometer? State its special feature. Draw a labeled neat diagram of a clinical thermometer showing the range of temperature marked on it.

## 5 MARKS QUESTIONS (DIFFICULT LEVEL)

1. How are the units  
square yard  
hectare  
km<sup>2</sup>  
cm<sup>2</sup>  
mm<sup>2</sup>

related to the S.I. unit of area ?

2. Explain how you will measure the area of (i) a square (ii) a leaf?
3. What is a clinical thermometer ? State its special feature . Draw a labelled neat diagram of a clinical thermometer showing the range of temperature marked on it.

What is the normal temperature of the human body ? How is it indicated in a clinical thermometer?