

## 2. Conversions Of Units

### 2.1 Number of zeroes in

1 lakh = 5 = 100,000	1
million = 6 = 1,000,000	
1 crore = 7 = 10,000,000	
billion = 9 = 1,000,000,000	

### 2.2 Linear Measures (Metric)

1. 10 millimeters (mm) = 1 centimeter (cm)
  2. 10 centimeters = 1 decimeter (dm)
  3. 10 decimeters = 1 meter (m or M)
  4. 10 meters = 1 Decameter (Dm)
  5. 10 decameter = 1 hectometer (hm)
  6. 10 hectometers = 1 kilometer (km) = 1000
- m = 100,000 cm

### British

1. 12 inches (in) = 1 foot (ft)

2. 3 feet = 1 yard (yd)
3. 220 yards = 1 furlong
4. 8 furlongs = 1 mile = 1760 yards = 5280 ft

### **Relationship**

1. 1 inch = 2.54 cm
2. 1 km = 5 furlongs
3. 1 mile = 1600 m
4. 1 meter = 1.1 yards = 3.39 ft
5. 1 mile = 1.6 km = 1600 meters

## **2.3 Area Measures:**

### **Metric**

1. 1 hectare = 1 sq. hm = 10,000 Sq. m

### **British**

1. 1 acre = 4840 sq. yards = 40,000 sq ft.
2. 1 are = 120 sq. yards
3. 40 ares = 1 acre
4. 1 cent = 440 sq ft.

### **Relationship**

1. 1 hectare = 2.5 acres

## **2.4 Volume Measures:**

### **Metric**

1. 1 cubic centimeter (cc) = 1 milliliter (ml).
2. 10 ml = 1 centilitre (cl).
3. 10 cl = 1 decilitre (dl).
4. 10 dl = 1 litre (L or l) = 1000 ml = 1000 cc.
5. 1000 litres = 1 kilolitre (kl).

### **British**

1. 20 ounces (oz) = 1 pint
2. 8 pints = 1 gallon

### **Relationship**

1. 1 gallon = 4.55 litres or 1 litre = 0.22 gallon.

## **2.5 Weight Measures:**

### **Metric**

1. 10 milligrams (mg) = 1 centigram (cgm)
2. 10 centigrams = 1 decigram (dgm)
3. 10 decigrams = 1 gram (gm)
4. 10 grams = 1 Decagram (Dgm)
5. 10 Decagrams = 1 hectogram (hgm)

6. 10 hectograms = 1 kilogram (kg) = 1000 gm
7. 100 kg = 1 quintal
8. 10 quintals = 1 metric ton = 1000 Kg

### **British**

1. 12 ounce (oz) = 1 pound (lb)
2. 14 pounds = 1 quarter (gr)
3. 4 quarters = 1 hundred weight (cwt)
4. 20 hundred weights = 1 ton
5. 1 ton = 2240 pounds

## **2.6 Speed Measures:**

### **Metric**

1 km = 1000 meters

1 hr = 3600 seconds

$$1 \text{ km/hr} = \left( \frac{1 \times 1000}{1 \times 3600} = \frac{5}{18} \right) \text{m/sec}$$

### **British**

1 mile = 1760 yards

1 yard = 3 feet

1 mile = 5280 feet

$$1 \text{ mph} = \left( \frac{1 \times 1760}{1 \times 3600} = \frac{22}{45} \right) \text{yards/sec}$$

$$1 \text{ mph} = \left( \frac{1 \times 5280}{1 \times 3600} = \frac{22}{15} \right) \text{ft/sec}$$