What are states of matter?

a) The temperature at which a liquid boils and becomes a gas.

b) A law that states that for a fixed amount of gas at a constant temperature, the volume of the gas increases as its pressure decreases and the volume of the gas decreases as its pressure increases.

c) A term used to describe a physical or chemical change in which energy is given of.

d) The physical forms in which a substance can exist; includes solid, liquid, gas, and plasma.

5. Force changes the

(a) motion of body (b) speed of body (c) shape of body (d) all of these

6. Which of the following is responsible for wearing out of bicycle tyres?

(a) Muscular force (b) Magnetic force (c) Frictional force

(d) Electrostatic force

7. Force of friction depends on

(a) roughness of surface (b) smoothness of surface

(c) inclination of surface (d) all of these

8. A toy car released with the same initial speed will travel farthest on

(a) muddy surface (b) polished marble surface

(c) cemented surface (d) brick surface

9. Friction is a

(a) non-contact force (b) contact force

(c) magnetic force (d) electrostatic force

10. Which of the following produces least friction?

(a) Sliding friction (b) Rolling friction

(c) Composite friction (d) Static friction

Choose the term to fill in the blanks.

11. force has to be applied to change the direction of a moving object.

(moving, direction, force)

12. When an elephant drags a wooden log over the land, the forces that are applied on the log are muscular, gravitation and frictional

(muscular force, mechanical force, gravitational force, frictional force)

13. A ball was set rolling on a large table. If its motion is to be changed, a force will have to be applied on it.

(force, motion, gravitation)

14. The force of friction always acts against the motion. (along, against)

15. One or more forces are acting in the following examples. Name them.

(a) An object falling from a tall building ...gravitional

(b) An aeroplane flying in sky ....mechanical

a) 10 quintal = 1 metric ton.

b) 1 cm = 0.1 metre.

c) 1 mm = 0.001 metre.

d) 1 yard = 3 ft.

e) 1 decimetre = 1/10 meter.

f) 1 decametre = 10 metre.

g) 1 hectometre = 100 metre

h) 1 gram = 0.001 kg.

i) 1 mg = 1×10^{-6} kg.

j) 1 lb = 453.59 g.

k) 1 h = 3600 s

l) 1 year = 31536000 s.

m) 1 day = 86400 s.

n) 1 decametre^2 = 100 m^2.

o) 1 hectare = 10000 m^2

p) 1 km^2 = 1,000,000 m^2.

17) The effect of friction are-

- Friction opposes motion
- Friction always act on opposite direction.
- It produce heat
- It cause wear and tear.

18) factor affecting the friction are-

- The smoothness of the surface because the rough surface cause high friction.

- The nature of medium because the fricaction vary less between a soild and liquid and least between a soild and gas

- The weight of the moving body because greater the weight of moving body produce more friction.

19) i. The ~~coin~~ maximum force exerted by a surface on a body so long as it remains stationary is called the force of static force.

ii. The friction exerted when an object slides over surface with a working fluid in between the two bodies is called sliding friction.

iii. The friction exerted when an object rolls over another surface is rolling friction.

24. i) Tension force - a force that is transmitted through a cable, rope, wire or string when it is pulled tight by forces acting from opposite side.

ii) Frictional force - the opposing force that is created between two surface that try to move in same direction.

25)

Solids	liquid	Gas
solid have a fixed shape and fixed volume.	liquid have a fixed volume, but no fixed shape	Gas have no fixed volume nor shape
Solid have high density	Liquid have less density than solids	Gas have least density
Solid cannot be compressed	Liquid can be compressed	Gas can be compressed

) Matter changes from one state to another by change in temperature and pressure. For e.g - solids on heating changes to liquid, liquid on futher heating changes to gases. In same manner gases on compression means to applying pressure change to liquid again.

27) i. A machine is oiled from time to time to reduce friction between its body parts. By doing so, the life span of a machine increases.

ii. An object thrown upwards comes down after reaching a point. This is because of the Earth's gravitational pull.

iii. Powder is spinkled on a carrom board to reduce friction between the stricker & carrom coins and the carrom board.

28) when we suddenly push brakes of vehicle of high speed, it creates a lot of friction, it means increase in friction. we pour oil in hinges of door to make it free to open and close, it means decrease in friction.

29) Cartilage is found in our body's joints and helps to minimise friction during joint movement. The wearing off of cartilage will increase the friction. As a result the movement of joints will be difficult.

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30) The ~~matter~~ mass of a body is the quantity of matter contained in it.
The SI unit of mass is kilogram. In short form, it is written as kg.
In CGS system, the unit of mass is gram.
In FPS system, the unit of mass is pound.

32) Doctors use a special thermometer for measuring the temperature of patient's body called the clinial thermometer. This thermometer has the marking from 35°c to 42°c. It has a slight bend or kink in the stem just above the bulb. This kink is called the constriction. This constriction

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31. Convert the following quantities as indicated:

(a) 200 kg = ...2.5...metric tonne

(b) 150 kg = ...1.5...quintal

(c) 10lb = 9.453.. kg

(d) 250 g = ...0.25 kg

(e) 0.01 kg = ...10..... g

(f) 5mg = 5X10^-6 kg

[redacted]

33. Fill in the blanks :

(a) The S.I. unit of length is meter of time is _ of mass is Kilometer

(b) °C is the unit of temperature

(c) 1 metre tonne = 10 quantial

(d) The zero mark in Celsius thermometer is the melting pointb of ice

(e) The thermometer used to measure the human body is called the _thermometer. clienical

(f) The normal temperature of human body is 37°C or, 98.6°F.

34 [redacted]

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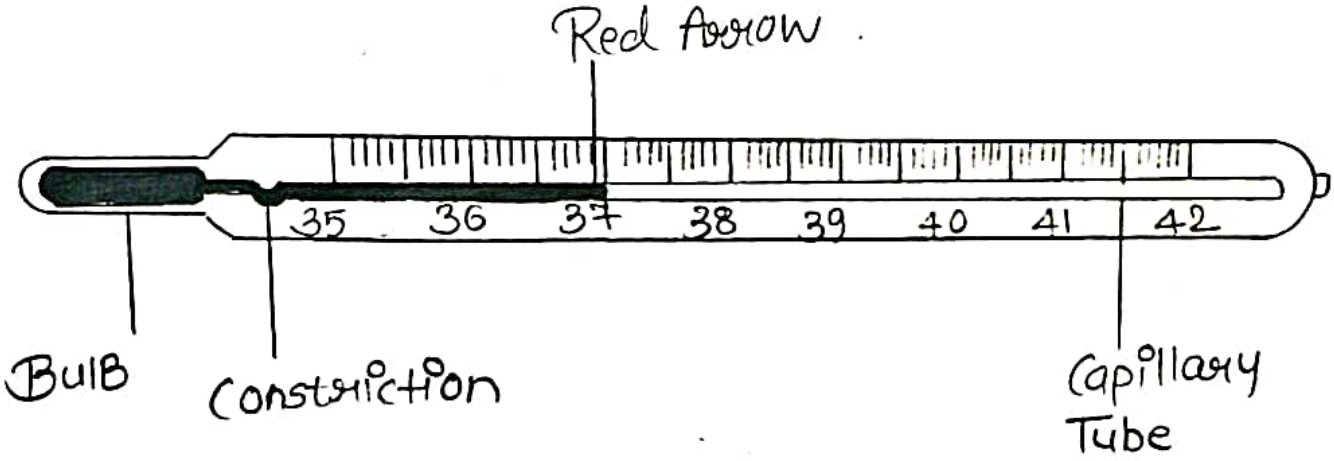
Red Arrow
35
36
37
38
39
40
41
42
Bulb
Constriction
Capillary Tube

The observation of purple colour speads throughout the water is that the crystal of potassium permangranate is made up of many small particle and these particle of water have spaces between them.