

(A)

1. Answer → C

2. Answer → C

3. Answer → B

4. Answer → d

54/A Motion of the body

64 Answer → C Frictional Force

74 Ans → D all of these

89 Ans → C Cemented surface

94 Ans → b

104 Ans → Rolling Friction

109 Force, direction moving

129 muscular, Gravitational, Friction force

137 Motion and force

147 Against

157 An aeroplane in the sky

167 one micron

b) $1/100$ of a metre

c) $1/1000$ of a metre

d) 3 feet

e) $1/10$ of a metre

f) 100 metre

g) 10 metre

h) $1/10000$ of a ky

i) $1/10,00,000$ of a ky

k_y 3600 s.

l_y 31536000 s

m_y 1440 seconds

n_y 10,000 square metre

o_y 10000 sq m

p_y 1000000 sq m

q_y 100 sq cm

r_y 0.0001 sq m

s_y 1x 10⁻⁶ sq m

t_y 0.836 sq m

u_y 0.90929 sq m

v_y 4046.858 sq m

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17) The effects of friction are:

- It helps us to walk in the field.
- Friction is responsible for many types of motion.

18) The smoothness of the surface

The nature of medium

The weight of the moving object on the surface.

19) Static → The force of friction acting on the object is called static friction

ii) Friction → The force of friction acting on the object is called which opposes the relative motion between the two

~~Sliding~~ surfaces

iii Sliding - The force exerted by the surface on the object is called sliding friction.

iv Rolling - The force that opposes the rolling motion of an object is called rolling friction.

20 The disadvantages of friction are:

- Friction cause the wear and tear in the machine.
- Friction produces heat.

21. on rubbing the match stick in the rough surface friction, converts with this work to heat. These raise temperature of the chemical present on the match head to its ignition temperature. As a result the chemical substance fire and the match ~~material~~ start burning.

22. The sole of shoes were worn out due to the effort friction. The soles of shoes increase the friction because it make the surfaces of the shoes rougher thus; this is due to the fact that friction cause wear and the tear of

objects and reduce the life of her.

23

14 ft

24 30.48 cm

31 0.2 m

24 420 cm

24 200 m

24 2 mm

24 0.9144 m

244 Applied Force -> The force that is applied to an object by a person or another object is called applied force. If a person is pushing a desk across the

room, then there is an applied force acting on the desk. The applied force is the force exerted on the desk by the person.

• Tension → Tension force is a force generating ~~where~~ when a load is applied at one or more ends of a ~~matter~~ materials in a direction away. The load being place upon the material must be applied axially to be a tension force. A tension force is often given as a "pulling" force.

• Frictional Force → The force that opposes

the relative motion between the two surfaces in contact with each other.

5) Compare properties of solid, liquid and gas are:

4) inter-molecular force

movement of molecules.

3) force of attraction ~~between~~ between the molecules.

The change in state of matter of a

substance from solid to liquid or

from liquid to gas is brought about

by imparting heat energy to it at a

constant temperature.

Solids ~~melting~~ Liquid
Heat absorbed

The heat energy ~~absorbed~~ ~~absorbed~~ by the substance increases the amplitude of vibration of the ~~molecules~~ molecules of the solids and a stage is reached at the melting point when the molecules acquire sufficient energy to overcome the force of attraction between them they become free to move. The solid thus changes into liquid

Liquid ~~boiling~~ Gas
Heat absorbed

The heat energy absorbed by a substance in liquid state increases the energy of its molecules to which they begin to move rapidly. Thus it changes into a gas.

27

- a. To reduce friction
- b. Because of gravitational force
- c. frictional

28 Decreasing friction etc.

By making the surface smooth
The surface are made smooth by
polishing them this is also achieved

by rubbing the surface with sandpaper and emery powder. Balls are cemented to make them smooth.

Increasing Friction :-

By increasing the weight :-

↑
By increasing the weight of the moving body, frictional force increases which develops a better grip between the body and the surface on which the body moves.

Cartilage is found in our body joint are helps to minimize friction during joint movement. However as this cartilage wear away, the power of friction increases, reducing the moving and causing joint pain. This cartilage deteriorates as people get ~~older~~ older.

The mass large body is the quantity of matter contained in it.

The SI unit of mass is kilogram. In

short form, it is written as kg.

C.G.S system the unit of mass is gram.

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In SI system the unit of mass is kg

$$1 \text{ g} = \frac{1}{1000} \text{ kg} = 100^{-3} \text{ kg}$$

$$1 \text{ lb} = 953.59 \text{ kg}$$

0.2 tonne

1.5 quintal

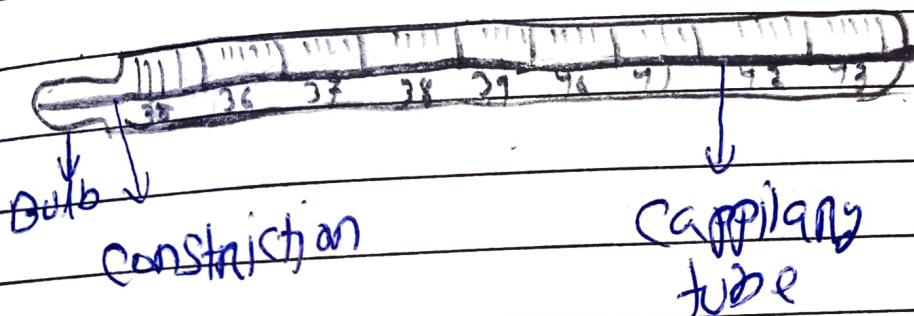
4.536 kg

0.25

250g

5/1000000

32) A clinical temperature is a marker in which we mark human body's temperature from 35°C to 42°C



~~to~~ Human body temperature is 37°C or 98.6°F .

Before use the bulb of a thermometer is washed by keeping it in a beaker containing cold water. Then it is slightly jerked to bring the mercury in its capillary tube below the

mark 37°C

~~mark body~~, then to measure the temperature of a patient's body, its bulb is kept either below the tongue or under the armpit of the patient for about one minute after which the thermometer is taken out and its reading is noted. If the temperature of the patient's body is above 37°C , he/she is said to be suffering from fever.

33

(a) Length is metre, time is seconds and mass is kg.

(b) Temperature

eg 1000g

eg ice

eg clinical thermometer

Fixed 37°C and 98.6°F

34. The observation of purple colour spreads ~~through~~ throughout the water is that the ~~crystal~~ crystal of potassium permanganate is made up of many of many small particles and these particles of water have spaces between them.