Science (Physis)

(A)

1. Answer → C
2. Answer → C
3. Answer → B
4. Answer → d
5. Answer → A Motion of the body
6. Answer → C Fruictional Force
7. Answer → D all of these
8. Answer → C Cemented surface
9. Answer → b
10. Answer → Rolling Fruiction
11. Force, direction, moving
12. Muscular, Gravitational, Fruiction Force.
13. Motion and Force
14. Against
15. An arreoplane in the sky
16. a. One metric ton

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. 1/1000 of a kg

i. 1/10,00,000 of a kg

j. 0.454 kg

k. 3,6000 s.

l. 31536000 s.

m. 1,440 seconds

no. 10,000 square metre

o. 10000 sq m

p. 1000000 sq m

q 100 sq Cm

the distance ...

r 0.0001 sq m

s 1×10^{-5} sq m

t 0.836 sq m

u 0.00029 sq m

v 4046.856 sq m

17. The effects of friction are :→
- It help 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.

Friction→ The force which opposes the relative motion between the two surfaces in contact with each other.

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

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 morning.
- Friction produces heat.

21. On rubbing the matchstick in the rough surface, the friction, converts with this work to heat. The heat raise temparature of the chemical present on the matchstick head to its ignition temparature. Due to this the chemical substances fire and the matchstick starts burning.

22. The soles of shoes were worn out due to the effects of friction. the soles of shoes increase the friction between surface because it makes the surface of the shoe rough. Thus; this is due to the fact that friction causes wear and tear of object and reduce the life of the object.

23.

a) 1 ft
b) 30.48 cm
c) 0.2 m
d) 420 cm
e) 200 m
f) 2 mm
g) 0.9144 m

24. Appli
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25.

i)

ii)

ii

26)

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 when a load is applied at one or more ends of a materials in a directional 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 motions between the two surfaces in contant with each other.

Compare properties of solid, liquid and gas are:

inter-molecular force.

Movement of molecules.

force of attraction between the molecules.

The change in state of matter of a substance from solid to liquid or form liquid to gas is brought about by imparting heat energy to it at a constant temperature.

Solids $\xrightarrow[\text{heat absorbed}]{\text{melting}}$ Liquid

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

Liquid $\xrightarrow[\text{Heat absorbed}]{\text{Boiling}}$ Gas

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

27.
a. To reduce friction
b. Because of gravitational force
c. Frictional

28. ~~Dne~~ Decreasing friction ex:→
- By making the surface smooth

The surface are made smooth by polishing them. This is also achieved by rubbing the surfaces with sandpaper and emray powder. Roads are cemented to make them smooth.

Increasing friction:-

- By increasing the weight:-

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

29. Cartilage is found in our body's joint and helps to minimise friction during joint movement. However as this cartilage wear away, the power of friction increases, reducing the ~~reducibility~~ movement and causing joint pain. This cartilage deteriorates as people get older. This increases friction, which make movement more difficult and causes joint paint.

~~30. Mass is a large body of matter and has no definite shape.~~

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

i) The S.I. unit of mass is ~~kg~~ kilogram. In short form, it is written as kg.

ii) C.G.S → system the unit of mass of a body is gram

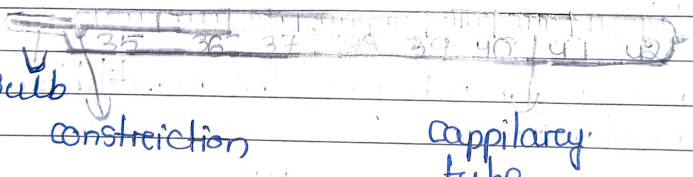
iii) F.P.S system the unit of mass is pound.

$1g = \frac{1}{1000} kg = 10^{-3} kg$

$1lb = 453.59 kg$

31.
a) 0.2 tonne
b) 1.5 quintal
c) 4.536 kg
d) 0.25
e) 250g
f) 5/100000

32. A clinical temparature is a marker in which we mark human body's temparature from 35°c to 42°c.



Humans body temparature is 37°c or 98.6°F.

Before use the bulb of a thermometre is washed by keeping it in a beaker containing cold water. Then it is slightly jerked to bring the level of mercury in its capillary tube below the mark 37°c. Then to measure the temparature of a patient's body, its bulb is kept either below the tongue or under the arem's pit of the patient for about a minute after which the thermometer is taken out and its

reading its noted. If the temparature of the patient's body is above 37°c, he/she is said to be suffering from fever.

Length is metre, time is seconds and mass is Kg

Temparature

1000 Kg

ice

Clinical thermometer

37°C and 98.6°F

The observation of purple colour spreads throughout the water is that the cyrstal of potassim permanganate is made up of many small particle and these particle of water have spaces between them.