

1. Nov/2020/Paper_11/No.5

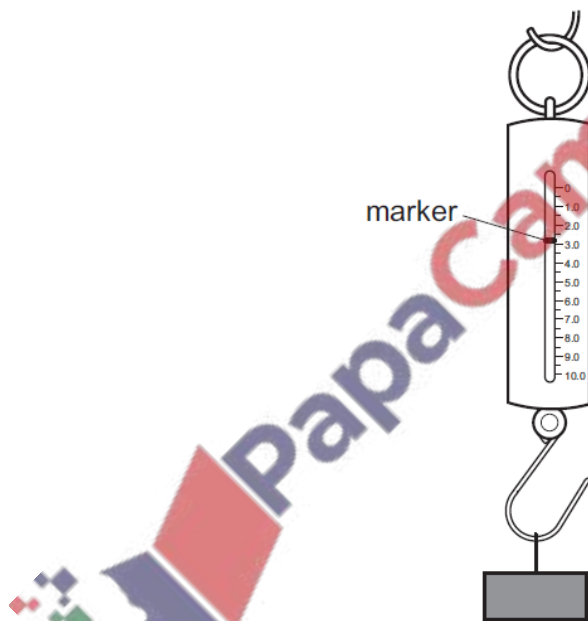
Some gas trapped in a cylinder is compressed at constant temperature by a piston.

Which property of the gas does **not** change?

- A density
- B mass
- C pressure
- D volume

2. Nov/2020/Paper_11/No.6

A block is hung on a spring balance. The marker inside the balance is pulled down by the block.



What can the position of the marker be used to determine?

- A the mass of the block in kg
- B the mass of the block in N
- C the moment caused by the block in N
- D the weight of the block in kg

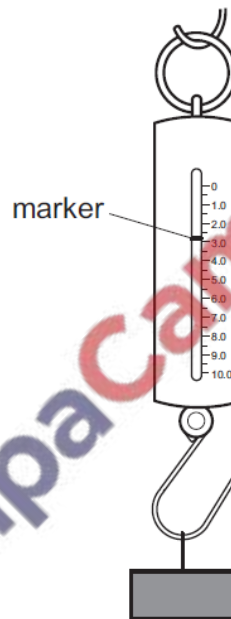
3. Nov/2020/Paper_11/No.8

Which statement about mass and weight is correct?

- A Mass is a scientific term that means the same as weight.
- B The mass of an object on Earth is 10 times its weight.
- C Weight is a scalar quantity, mass is a vector quantity.
- D Weight is the force of gravity pulling on a mass.

4. Nov/2020/Paper_12/No.7

A block is hung on a spring balance. The marker inside the balance is pulled down by the block.



What can the position of the marker be used to determine?

- A the mass of the block in kg
- B the mass of the block in N
- C the moment caused by the block in N
- D the weight of the block in kg

5. Nov/2020/Paper_12/No.8

There is an astronaut on a planet which has a gravitational field strength one fifth of the value on Earth.

He hangs samples of rock from a spring balance designed for use on Earth. Each sample has a mass of 0.1 kg.

The spring balance reads 1.0 kg.

How many samples of rock are there?

- A 2 B 10 C 25 D 50

6. June/2020/Paper_11/No.8

Which type of force causes the Earth to orbit the Sun?

- A elastic
B electrostatic
C gravitational
D magnetic

7. June/2020/Paper_11/No.9

Four objects of different masses are on different planets.

The weight of each object on its planet is determined.

Which object is on the planet with the smallest gravitational field strength?

	mass / kg	weight / N
A	5	125
B	15	150
C	20	220
D	25	225

8. June/2020/Paper_12/No.9

An object weighs 40 N on Earth, where the gravitational field strength is 10 N/kg. The object is taken to a planet where the gravitational field strength is 4.0 N/kg.

Which row is correct?

	mass of object on the planet / kg	weight of object on the planet / N
A	4.0	1.0
B	4.0	16
C	400	100
D	400	1600

