Mass and Weight – 2022 June IGCSE 0625

1. June/2022/Paper_11/No.4

A spring balance operates by the compression of a spring. It has been calibrated on the Earth in grams.

A beam balance operates by balancing standard masses against the unknown mass to be measured.

The same unknown mass is measured with each balance on the Earth and on the Moon.

The gravitational field strength on the Earth is greater than that on the Moon.

How would the measurements on the Earth compare with those on the Moon?

	spring balance measurements	beam balance measurements
A	larger on the Earth than on the Moon	larger on the Earth than on the Moon
B	larger on the Earth than on the Moon	same on the Earth as on the Moon
C	same on the Earth as on the Moon	larger on the Earth than on the Moon
D	same on the Earth as on the Moon	same on the Earth as on the Moon

2. June/2022/Paper_12/No.4

An object is moved from point X to point Y.

The acceleration of free fall at X is different from that at Y.

Which statement about the object at Y is correct?

A Both its mass and its weight are different from those at X.

B Both its mass and its weight are the same as those at X.

C Its mass is the same as at X but its weight is different.

D Its weight is the same as at X but its mass is different.

3. June/2022/Paper_13/No.4
Four students are given two different objects, P and Q.

Each student measures the mass of P and the weight of Q.

The results are shown in the table.

Which row gives a possible result?

	mass of object P	weight of object Q
A	10 kg	10 kg
B	10 kg	10 N
C	10 N	10 kg
D	10 N	10 N

4. June/2022/Paper_21/No.4
On the Moon, all objects fall with the same acceleration.

Which statement explains this?

A On the Moon, all objects have the same weight.

B The Moon has a smaller gravitational field strength than the Earth.

C The weight of an object is directly proportional to its mass.

D The weight of an object is inversely proportional to its mass.

5. June/2022/Paper_22/No.4
On the Moon, all objects fall with the same acceleration.

Which statement explains this?

A On the Moon, all objects have the same weight.

B The Moon has a smaller gravitational field strength than the Earth.

C The weight of an object is directly proportional to its mass.

D The weight of an object is inversely proportional to its mass.

6. June/2022/Paper_23/No.4

On the Moon, all objects fall with the same acceleration.

Which statement explains this?

A On the Moon, all objects have the same weight.

B The Moon has a smaller gravitational field strength than the Earth.

C The weight of an object is directly proportional to its mass.

D The weight of an object is inversely proportional to its mass.

7. June/2022/Paper_32/No.2(b)

(b) The mass of the textbook is 1300 g.

Calculate the weight of the textbook.

weight = ... N [3]