

Mark schemes

Q1.

C

$$\frac{R}{2}$$

[1]

Q2.

B

$$10^4 \text{ m}$$

[1]

Q3.

D

*The work done moving from **Q** to **R** and moving from **Q** to **S** is the same.*

[1]

Q4.

B

$$\left(\frac{M}{R}\right)^{\frac{1}{2}}$$

[1]

Q5.

B

$$\sqrt{\frac{GM}{(R+h)}}$$

[1]

Q6.

D

Signals from the satellite can be sent to at any point on the Earth's surface during one orbit.

[1]

Q7.

D

[1]

Q8.

B

[1]

Q9.

B

[1]

Q10.

C

[1]

Q11.

D

[1]