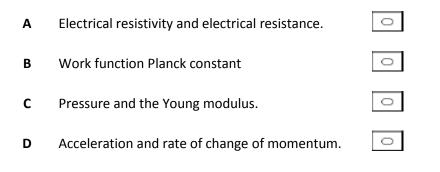
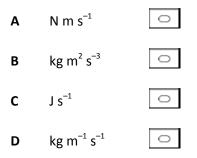
Q1.In which of the following do both quantities have the same unit?



(Total 1 mark)

## Q2. Which of the following is not a unit of power?



**Q3.**Which of the following gives a correct unit for  $\left(\frac{g^2}{G}\right)_{?}$ 



(Total 1 mark)

Q4. Which one of the following is a possible unit of impulse?

- **A** Ns<sup>-1</sup>
- **B** kg ms<sup>-1</sup>
- **C** kg ms<sup>-2</sup>
- **D** sN<sup>-1</sup>

**Q5.**Which one of the following gives a correct unit for  $\left(\frac{g}{G}^2\right)_?$ 

- **A** N m<sup>-2</sup>
- B N kg<sup>-1</sup>
- C N m
- D N

(Total 1 mark)

**Q6.** Which one of the following **cannot** be used as a unit for electric field strength?

- **A** J m<sup>-1</sup> C<sup>-1</sup>
- **B** J  $A^{-1} s^{-1} m^{-1}$
- **C** N  $A^{-1} s^{-1}$
- **D**  $J C m^{-1}$

(Total 1 mark)

**Q7.** Which of the following is a possible unit for rate of change of momentum?

- A Ns
- **B** N  $s^{-1}$
- **C** kg ms<sup>-1</sup>
- **D** kg ms<sup>-2</sup>

- **Q8.** Which one of the following could be a unit of gravitational potential?
  - **A** N
  - B J
  - C N kg<sup>-1</sup>
  - D J kg<sup>-1</sup>

**Q9.** In parts (i) and (ii) circle the letter that corresponds to the correct answer.

- (i) The resistance of a negative temperature coefficient (ntc) thermistor
  - A increases as temperature increases.
  - **B** is constant at temperatures below 0 °C.
  - **C** increases as temperature decreases.
  - **D** falls to zero when a critical temperature is reached.
- (ii) The unit of potential difference can be expressed as
  - **A C** S<sup>-1</sup>
  - **B** J C<sup>-1</sup>
  - **C** V A<sup>-1</sup>
  - **D** J A<sup>-1</sup>

(1) (Total 2 marks)

(1)

**Q10.**The fission of one nucleus of uranium 235 releases 200 MeV of energy. What is the value of this energy in J?

- A 3.2 × 10<sup>-25</sup> J
- **B** 3.2 × 10<sup>-17</sup> J
- **C**  $3.2 \times 10^{-11}$  J
- **D** 2.0 × 10<sup>6</sup> J

(Total 1 mark)

Q11. Which line, A to D, gives correct units for both magnetic flux and magnetic flux density?

	magnetic flux	magnetic flux density
Α	Wb m⁻²	Wb
в	Wb	Т
с	Wb m⁻²	T m <sup>-2</sup>
D	T m <sup>-2</sup>	Wb m <sup>-2</sup>