



## PRACTICE MAKES PERFECT OBJECTIVE Qs

### 1.1 PHYSICAL QUANTITIES

#### 1. SPM 2003/1

Which physical quantity has the correct S.I units?

*Kuantiti fizikal manakah mempunyai unit SI yang betul?*

|   | Physical quantity/<br><i>Kuantiti fizikal</i> | S.I unit<br><i>Unit SI</i> |
|---|-----------------------------------------------|----------------------------|
| A | Temperature<br><i>Suhu</i>                    | Celsius<br><i>Celcius</i>  |
| B | Time<br><i>Masa</i>                           | Minute<br><i>Minit</i>     |
| C | Mass<br><i>Jisim</i>                          | Newton<br><i>Newton</i>    |
| D | Length<br><i>Panjang</i>                      | Meter<br><i>Meter</i>      |

#### 2. SPM 2005 / 3

The relationship between stretching force,  $F$  with the extension,  $x$  of a spring is given by the equation:

*Hubungan antara daya regangan,  $F$  dengan pemanjangan,  $x$  bagi spring diberikan oleh persamaan :*

$$F = kx$$

where  $k$  is the spring constant.  
*dimana  $k$  ialah pemalar spring.*

What is the unit of  $k$ ?  
*Apakah unit bagi  $k$ ?*

- A  $\text{Nm}^{-1}$
- B  $\text{Nm}^{-2}$
- C  $\text{kg Nm}^{-1}$
- D  $\text{kg Nm}^{-2}$

#### 3. SPM 2006/1

Which of the following physical quantities is **not** a base quantity?

*Manakah antara kuantiti fizikal berikut **bukan** kuantiti asas?*

- A Weight / *Berat*
- B Time / *Masa*
- C Temperature / *Suhu*
- D Electric current / *Arus elektrik*

#### 4. SPM 2013/1

Which pair of physics quantity and SI unit is correct?

*Pasangan kuantiti fizik dan unit SI manakah yang betul?*

|   | Physics quantity<br><i>Kuantiti fizik</i> | SI unit<br><i>Unit SI</i>     |
|---|-------------------------------------------|-------------------------------|
| A | Electric current<br><i>Arus elektrik</i>  | Ampere<br><i>Ampere</i>       |
| B | Pressure<br><i>Tekanan</i>                | Newton<br><i>Newton</i>       |
| C | Weight<br><i>Berat</i>                    | Kilogramme<br><i>kilogram</i> |
| D | Force<br><i>Daya</i>                      | Joule<br><i>Joule</i>         |

#### 5. SPM 2014/1

Which quantity is base quantity?

*Kuantiti manakah adalah kuantiti asas?*

- A Potential difference / *Beza keupayaan*
- B Electric current / *Arus elektrik*
- C Electric energy / *Tenaga elektrik*
- D Electric power / *Kuasa elektrik*

#### 6. SPM 2015/1

Which of the following SI units is correct for each quantity?

*Unit SI manakah yang betul bagi setiap kuantiti?*

|   | Quantity<br><i>Kuantiti</i> | SI unit<br><i>Unit SI</i>                 |
|---|-----------------------------|-------------------------------------------|
| A | Mass<br><i>Jisim</i>        | Gram (g)<br><i>Gram (g)</i>               |
| B | Time<br><i>Masa</i>         | Minute (min)<br><i>Minit (min)</i>        |
| C | Length<br><i>Panjang</i>    | Centimetre (cm)<br><i>Sentimeter (cm)</i> |
| D | Temperature<br><i>Suhu</i>  | Kelvin (K)<br><i>Kelvin (K)</i>           |

#### 7. SPM 2007/2

Which of the following quantities is a vector quantity?

*Manakah antara kuantiti berikut ialah kuantiti vektor*

- A Energy  
*Tenaga*
- B Power  
*Kuasa*
- C Force  
*Daya*
- D Pressure  
*Tekanan*

#### 8. SPM 2009/2

Which quantity is a vector quantity?

*Kuantiti manakah ialah kuantiti vector?*

- A Area / *Luas*
- B Length / *Panjang*
- C Distance / *Jarak*
- D Displacement / *Sesaran*

9. SPM 2012/3

Which of the following is a vector quantity?

Antara berikut, yang manakah kuantiti vector?

- A Energy / Tenaga
- B Force / Daya
- C Mass / Jisim
- D Speed / Laju

10. SPM 2015/2

Which quantity is a vector quantity?

Kuantiti manakah adalah kuantiti vector?

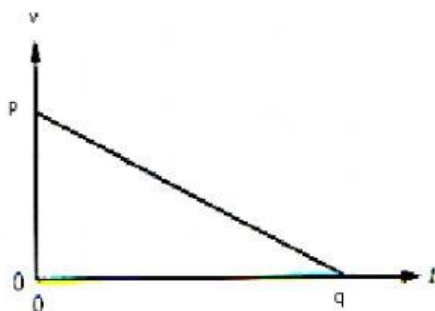
- A Mass / Jisim
- B Energy / Tenaga
- C Pressure / Tekanan
- D Momentum / Momentum

1.2 SCIENTIFIC INVESTIGATIONS

11. SPM 2003/2

The graph shows the relationship between  $v$  and  $t$ .

Graf manakah menunjukkan hubungan antara  $v$  dan  $t$ ?



The relationship between  $v$  and  $t$  is represented by the equation

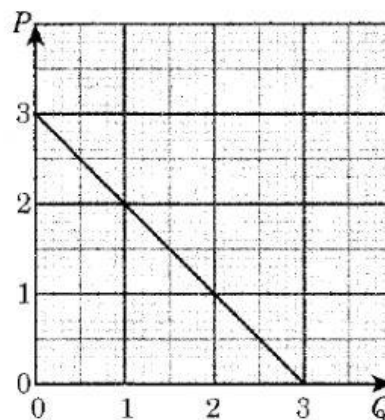
Hubungan antara  $v$  dan  $t$  diwakili oleh persamaan

- A  $v = \frac{p}{q}t + p$
- B  $v = \frac{p}{q}t + q$
- C  $v = -\frac{p}{q}t + p$
- D  $v = -\frac{p}{q}t + q$

12. SPM 2004/3

The graph shows the relationship between physical quantities  $P$  and  $Q$ .

Graf menunjukkan hubungkait antara kuantiti fizikal  $P$  dan  $Q$ .



Which statement about the graph correct?

Penyataan manakah benar?

- A If  $Q=1$ , then  $P=2$   
Jika  $Q = 1$ , maka  $P = 2$
- B The gradient of the graph is 1  
Kecerunan graf ialah 1
- C  $P$  is directly proportional to  $Q$   
 $P$  berkadar terus dengan  $Q$
- D The equation of the graph is  $P=1+3Q$   
Persamaan graf ialah  $P=1+3Q$

13. SPM 2006/2

Which of the following graph obeys the equation  $F=kx$ , where  $k$  is constant.

Manakah antara graf berikut mematuhi persamaan  $F = kx$  dimana  $k$  ialah pemalar

