BAB
1 Pengukuran
Measurements

Modul PBD

Info Ekstra

1.1 Kuantiti Fizik/ *Physical Quantities*

Isi tempat kosong/ *Fill in the blanks.*

1 Takrif kuantiti fizik, kuantiti asas dan kuantiti terbitan. SP 1.1.1 TP 1
Definition of physical quantity, base quantity and derived quantity.

(a) Kuantiti yang boleh diukur dikenali sebagai _____.
A quantity that can be measured is known as a _____.

(b) _____ ialah kuantiti yang tidak boleh ditakrifkan dengan kuantiti asas yang lain.
A _____ *is a quantity that cannot be expressed in terms of other base quantities.*

(c) Kuantiti terbitan ialah kuantiti yang diterbitkan daripada gabungan kuantiti _____ melalui _____ dan _____ atau kedua-duanya.
Derived quantities are physical quantities which are derived from a combination of _____ *quantities through* _____ *or* _____ *or both.*

2 Senaraikan tujuh kuantiti asas yang terpilih dan unit SI terbabit. SP 1.1.1 TP 1
List the seven chosen base quantities and their corresponding SI *units.*

Kuantiti Asas/ *Base Quantities*		**Unit Asas (SI)/ *Base Unit (SI)***	
Nama/ *Name*	**Simbol/ *Symbol***	**Nama/ *Name***	**Simbol/ *Symbol***
Panjang/ *Length*	l	meter/ *metre*	
Jisim/ *Mass*	m		kg
Masa/ *Time*	t		s
Suhu/ *Temperature*	T	Kelvin	
Arus/ *Current*	I		A
Kuantiti bahan/ *Quantity of substance*	n		mol
Keamatan cahaya/ *Luminous intensity*	I_v	candela	

3 Terbitkan kuantiti-kuantiti berikut. SP 1.1.3 TP 3
Derive the following quantities.

Kuantiti terbitan *Derived quantity*	**Simbol** *Symbol*	**Hubungan dengan kuantiti asas** *Relationship with base quantities*	**Unit Terbitan (nama khas)** *Derived Unit (special name)*
Isi padu *Volume*	V	Panjang × Panjang × Panjang *Length × Length × Length*	
Ketumpatan *Density*	ρ	$\frac{\text{Jisim/ } Mass}{\text{Isi padu/ } Volume}$	
Pecutan *Acceleration*	a	$\frac{\text{Perubahan halaju/ } Change\ in\ velocity}{\text{Masa/ } Time}$	
Daya *Force*	F	Jisim × Pecutan *Mass × Acceleration*	
Kerja *Work*	W	Daya × Sesaran *Force × Displacement*	

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