

JABATAN PENDIDIKAN NEGERI SARAWAK

PEPERIKSAAN AMALI SAINS SARAWAK TINGKATAN 5 TAHUN 2023

AMALI KIMIA 4541/3

PERATURAN PERMARKAHAN

<https://cikguadura.wordpress.com/>

Kertas peraturan permarkahan ini mengandungi 4 halaman bercetak.

Soalan Question	Penerangan Description	Markah Mark		Kemahirran Proses Sains Science Process Skill																		
		Ceraian Sub-total	Jumah Total																			
1 (a)	Dapat merekodkan masa untuk pita magnesium larut <i>Able to record the time taken for magnesium ribbon to dissolves</i> 1. Bacaan Masa – 2 titik perpuluhan <i>Time reading – 2 decimal place</i> 2. Semua bacaan adalah betul <i>All readings correct</i> Contoh jawapan: <i>Sample answer:</i> <table><tr><td>Eksperimen <i>Experiment</i></td><td>I</td><td>II</td><td>III</td><td>IV</td><td>V</td></tr><tr><td>Masa untuk pita magnesium larut (s) <i>Time taken for magnesium ribbon to dissolve (s)</i></td><td>24.56</td><td>30.62</td><td>42.00</td><td>66.94</td><td>150.00</td></tr><tr><td></td><td>24.50</td><td>31.40</td><td>38.50</td><td>54.20</td><td>126.98</td></tr></table>	Eksperimen <i>Experiment</i>	I	II	III	IV	V	Masa untuk pita magnesium larut (s) <i>Time taken for magnesium ribbon to dissolve (s)</i>	24.56	30.62	42.00	66.94	150.00		24.50	31.40	38.50	54.20	126.98	1 1	2	Mengukur dan menggunakan nombor <i>Measuring and using numbers</i>
Eksperimen <i>Experiment</i>	I	II	III	IV	V																	
Masa untuk pita magnesium larut (s) <i>Time taken for magnesium ribbon to dissolve (s)</i>	24.56	30.62	42.00	66.94	150.00																	
	24.50	31.40	38.50	54.20	126.98																	
1 (b)	Dapat menyatakan satu pemerhatian <i>Able to state one observation</i> Pita magnesium larut sepenuhnya // Pembuakan gas berlaku // <i>Magnesium ribbon dissolves completely //</i> <i>Effervescence occur// Colourless gas bubbles is released.</i>	1	1	Membuat pemerhatian <i>Making observation</i>																		
1 (c)	Dapat menyatakan satu hipotesis <i>Able to state the hypothesis</i> Semakin tinggi kepekatan asid sulfurik, semakin pendek masa diambil untuk 2 cm magnesium larut sepenuhnya. <i>The higher the concentration of sulphuric acid, the shorter the time taken for 2 cm of magnesium to dissolve completely.</i>	1 1	2	Membuat hipotesis <i>Making hypothesis</i>																		

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Soalan Question	Penerangan Description	Markah Mark		Kemahiran Proses Sains Science Process Skill
		Ceraian Sub-total	Jumlah Total	
1(d)(i)	Dapat memplot graf kepekatan asid sulfurik melawan masa Able to plot graph of concentration of sulphuric acid against time P1 { 1. Kedua-dua paksi dilabel dengan unit yang betul Both axes are labelled with units correctly 2. Mempunyai skala yang konsisten dan saiz graf melebihi 50% Consistent scale and size of the graph are more than 50% of the page P2 3. Semua titik dipindah dengan tepat All points are transferred correctly P3 4. Lengkung yang licin Smooth curve Contoh jawapan: Sample answer: Concentration of acid mol dm^{-3} Concentration of acid / mol dm^{-3} Time / s	1 1	3	Berkomunikasi Communication
1(d)(ii)	Dapat menyatakan masa untuk magnesium larut jika kepekatan asid sulfurik yang digunakan ialah 1.0 mol dm^{-3} Able to state the time taken for magnesium to dissolve if the concentration of sulphuric acid used is 1.0 mol dm^{-3} 1. Tunjukkan dalam graf Show in graph 2. Masa dengan unit yang betul Time with correct unit Contoh jawapan: Sample answer: 54 s $\pm$ 2 46 s $\pm$ 2	1 1	2	Mentafsir data Interpreting data

Soalan Question	Penerangan Description	Markah Mark		Kemahiran Proses Sains Science Process Skill								
		Ceraian Sub-total	Jumlah Total									
1(e)	Dapat menyatakan definisi secara operasi bagi kadar tindak balas dengan betul <i>Able to state the operational definition of the rate of reaction correctly</i> 1. Apa yang dilakukan <i>What should be done</i> 2. Apa yang diperhatikan <i>What should be observed</i> Masa yang diambil untuk 2 cm magnesium larut sepenuhnya dalam asid sulfurik <i>The time taken for the 2 cm magnesium to dissolve completely in the sulphuric acid</i> P1: done P2: observed	1 1	2	Mendefinisikan secara operasi <i>Defining operationally</i>								
1(f)	Dapat menyatakan hubungan antara saiz magnesium dengan masa <i>Able to state the relationship between size of magnesium and time</i> Saiz magnesium berkurang dengan masa <i>Size of magnesium decreases with time</i>	1	1	Menggunakan hubungan Ruang-masa <i>Using Space-time relationship</i>								
1(g)	Dapat mengelas tindak balas perlahan dan tindak balas cepat dalam jadual <i>Able to classify the slow reaction and fast reaction in table</i> <table><tr><th>Tindak balas perlahan P Slow reaction</th><th>Tindak balas cepat P Fast reaction</th></tr><tr><td>Fotosintetis Photosynthesis</td><td>Pembakaran Combustion</td></tr><tr><td>Penapaian glukosa Fermentation of glucose</td><td>Pemendakan argentum klorida Precipitation of silver chloride</td></tr><tr><td>Pengaratan besi Rusting of iron</td><td></td></tr></table> https://cikguadura.wordpress.com/	Tindak balas perlahan P Slow reaction	Tindak balas cepat P Fast reaction	Fotosintetis Photosynthesis	Pembakaran Combustion	Penapaian glukosa Fermentation of glucose	Pemendakan argentum klorida Precipitation of silver chloride	Pengaratan besi Rusting of iron		1 1	2	Pengelasan <i>Classifying</i>
Tindak balas perlahan P Slow reaction	Tindak balas cepat P Fast reaction											
Fotosintetis Photosynthesis	Pembakaran Combustion											
Penapaian glukosa Fermentation of glucose	Pemendakan argentum klorida Precipitation of silver chloride											
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JUMLAH MARKAH TOTAL MARK		15										