

PERATURAN PEMARKAHAN KERTAS AMALI KIMIA

No	Rubrik			Markah	Jum. Markah								
2.	<table border="1"> <tr> <td>Kepekatan asid hidroklorik, HCl (mol dm⁻³) <i>Concentration of hydrochloric acid, HCl (mol dm⁻³)</i></td> <td>0.1</td> <td>0.01</td> <td>0.00001</td> </tr> <tr> <td>Nilai pH <i>pH Value</i></td> <td>1.0</td> <td>2.0</td> <td>3.0</td> </tr> </table>			Kepekatan asid hidroklorik, HCl (mol dm ⁻³) <i>Concentration of hydrochloric acid, HCl (mol dm⁻³)</i>	0.1	0.01	0.00001	Nilai pH <i>pH Value</i>	1.0	2.0	3.0	3	3
Kepekatan asid hidroklorik, HCl (mol dm ⁻³) <i>Concentration of hydrochloric acid, HCl (mol dm⁻³)</i>	0.1	0.01	0.00001										
Nilai pH <i>pH Value</i>	1.0	2.0	3.0										
(a)	(i)	<p>Dimanipulasikan : Kepekatan asid hidroklorik <i>Manipulated</i> hydrochloric</p> <p>Bergerak balas : Nilai pH <i>Responding</i> pH value</p> <p>Dimalarkan : Isipadu asid hidroklorik <i>Constant</i> Volume of hydrochloric acid</p>		1 1 1	3								
	(ii)	<p>Hipotesis : Semakin tinggi kepekatan ion hidrogen, H⁺, semakin rendah nilai pH asid <i>The higher the ion concentration hydrogen, H⁺, the lower acid pH value</i></p>		1	1								
	(iii)	<p>Definisi secara operasi : <i>Operational definition</i> Apabila kertas pH dicelupkan kedalam asid hidroklorik yang berlainan kepekatan, akan memberikan nilai pH yang berbeza <i>When pH paper is dipped into hydrochloric acid of different concentrations, it will give different pH values</i></p> <p>(Pembeltulan skema) Kertas pH menunjukkan warna seperti skala pH apabila dicelupkan ke dalam larutan asid yang berbeza kepekatan</p>		1	1								
(b)	(i)	<p>Kepekatan ion hidrogen, H⁺ Asid hidroklorik, HCl 0.1 moldm⁻³ pH = -log [H⁺] 1.0 = -log [H⁺] log[H⁺] = -1.0 [H⁺] = 10⁻¹ = 0.1 Asid hidroklorik, HCl 0.00001 moldm⁻³ pH = -log [H⁺] 3.0 = -log [H⁺]</p>		1 1	4								

		$\log[H^+] = -3.0$ $[H^+] = 10^{-3}$ $= 0.001$	1 1	
	(ii)	Apabila ion hidrogen, H^+ berkurang, nilai pH bertambah. <i>When hydrogen ions, H^+ decrease, the pH value increases.</i>	1	1
	(iii)	Darjah keasidan larutan akueus berkurang Kepekatan ion hidrogen, H^+ berkurang <i>The degree of acidity of the aqueous solution is reduced</i> <i>The concentration of hydrogen ions, H^+ decreases</i>	1 1	2
			JUMLAH	15