

KK0503 – Mengukur dan menggunakan nombor

Question number	Rubric	Score
1(a)	<i>Able to write the initial burette reading, the final burette reading and the volume of sulphuric acid accurately</i>  Answer: Burette reading = 25.90 The volume of gas = 24.10	3
	<i>Able to write <b>any one</b> readings accurately and the readings in one decimal place</i>	2
	<i>Able to write <b>any one</b> reading in one decimal place</i>	1
	No response or wrong response	0

KK0506 – Berkomunikasi

Question number	Rubric	Score
1(b)	<p><i>Able to draw the graph of volume of gas against time for both experiments correctly and completely</i></p> <p><i>The graph consist of:</i></p> <ol style="list-style-type: none"> <li><i>1. Both axis are labeled and with unit</i> <ul style="list-style-type: none"> <li><i>- y axis, volume of gas / cm<sup>3</sup></i></li> <li><i>- x axis, time/ s</i></li> </ul> </li> <li><i>2. All points are transferred correctly</i></li> <li><i>3. Uniform scale</i></li> <li><i>4. Best fit curve</i></li> </ol>	3
	<p><i>Able to draw the graph of volume of gas against time for both experiments correctly</i></p> <p><i>The graph consist of:</i></p> <ol style="list-style-type: none"> <li><i>1. Both axis are labeled</i> <ul style="list-style-type: none"> <li><i>- y axis, volume of gas</i></li> <li><i>- x axis, time</i></li> </ul> </li> <li><i>2. At least 5 points are transferred correctly</i></li> <li><i>3. Uniform scale</i></li> <li><i>4. Fit curve</i></li> </ol>	2
	<p><i>Able to sketch any form of curve of volume of gas against time for both experiments</i></p> <p><i>Sketch consist of:</i></p> <ol style="list-style-type: none"> <li><i>1. Two axis</i></li> <li><i>2. graph curve</i></li> </ol>	1
	No response or wrong response	0

KK0508 – Mentafsir data

Question number	Rubric	Score
1(c)	<i>Able to interpret from the graph accurately</i> Answer: Expt II Because the curve in Expt II is steepest//the gradient is higher	3
	<i>Able to interpret from the graph correctly:</i> Answer: Expt II because the curve is higher	2
	<i>Able to give the idea about the graph</i> Answer: -Expt I/II - Curve /gradient is higher	1
	No response or wrong respons	0

KK0501 – Membuat pemerhatian

Question number	Rubric	Score
1(d)	<i>Able to state one observation correctly</i> Answer: Colourless bubbles is released/burette reading decrease	3
	<i>Able to state one observation</i> The gas turns lime water chalky	2
	<i>Able to state idea of the observation</i> Colourless gas is released	1
	No response or wrong response	0

KK0504 – Membuat inferens

Question number	Rubric	Score
1(e)	<i>Able to state an accurate inference for this experiments:</i> Answer: Carbon dioxide gas is released	3
	<i>Able to state the general inference for this experiments:</i> Answer:	2
	<i>Able to state the general inference for this experiments:</i> Answer: Any /Gas is released	1
	No response or wrong response	0

KK0510 – Memberi definasi secara operasi

Question number	Rubric	Score
1(f)	<i>Able to give the operational definition accurately</i> Rate of reaction is the increases in volume of carbon dioxide gas released in 360 seconds	3
	<i>Able to give the operational definition correctly</i> Rate of reaction is the changes in volume of carbon dioxide gas per unit time	2
	<i>Able to give the idea about the operational definition</i> Rate of reaction is the changes in volume of gas	1
	No response or wrong response	0

KK0510 – Mengawal pembolehubah

Question number	Rubric	Score
1(g)(i)	<i>Able to state three variables correctly</i>  Answer: <b>Manipulated variable</b> Size of calcium carbonate /Total surface area of calcium carbonate  <b>Responding variable</b> Rate of reaction/ The volume of gas released in 5 minutes[ period of time]  <b>Controlled variable</b> Concentration and volume of hydrochloric acid	3
	<i>Able to state any 2 variables correctly</i>	2
	<i>Able to state any 1 variable correctly</i>	1
	No response or wrong respons	0

KK0510 – Mengawal pembolehubah

Question number	Rubric	Score
1(g)(ii)	<i>Able to state how to manipulate variables correctly</i>  Answer: Large calcium carbonate is replaced with small calcium carbonate while the volume and concentration of acid is same in both experiment	3
	<i>Able to state how to manipulate variables</i> Large calcium carbonate is replaced with small calcium carbonate while the volume/concentration of acid is maintain/same in both expt	2
	<i>Able to state the idea how to manipulate variables</i> -Large calcium carbonate is replaced with small calcium carbonate @ use same volume/concentration of acid	1
	No response or wrong response	0

\*\*\*\*\*Note:Maximum jumlah markah untuk soalan (g)(i) dan (ii) adalah 3 sahaja.

KK0511 – Membuat hipotesis

Question number	Rubric	Score
1(h)	<p><i>[Able to state the relationship between the manipulated variable and the responding variable correctly and with direction]</i></p> <p>Answer: When the total surface area of calcium carbonate increases, the rate of reaction increases</p>	3
	<p><i>[Able to state the relationship between the manipulated variable and the responding variable correctly and without direction]</i></p> <p>Answer: The total surface area of substance increases the rate of reaction The rate of reaction increases when the total surface area of calcium carbonate increases.</p>	2
	<p><i>[Able to state an idea of the hypothesis]</i></p> <p>Answer: The total surface area of substance influence the rate of reaction</p>	1
	No response or wrong response	0

KK0505 – Membuat ramalan

Question number	Rubric	Score
1(i)	<i>Able to predict the volume of gas released correctly</i> <b>Answer:</b> 0.00 cm <sup>3</sup>	3
	<i>Able to predict the volume of gas released</i> 0.0 cm <sup>3</sup> /0.0	2
	<i>Able to predict the idea of gas released</i> 42.00	1
	No response or wrong response	0

KK0502 – Mengelas

Question number	Rubric	Score								
1(j)	<i>Able to make the classification of fast reaction and slow reaction accurately</i> <b>Answer:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Fast reaction</td> <td style="width: 50%;">Slow reaction</td> </tr> <tr> <td>Combustion</td> <td>Corrosion</td> </tr> <tr> <td>Neutralization</td> <td>Rusting</td> </tr> <tr> <td>Displacement</td> <td>Fermentation</td> </tr> </table>	Fast reaction	Slow reaction	Combustion	Corrosion	Neutralization	Rusting	Displacement	Fermentation	3
	Fast reaction	Slow reaction								
	Combustion	Corrosion								
	Neutralization	Rusting								
Displacement	Fermentation									
Able to make the classification of any 5 reactions correctly	2									
Able to make the classification of any 3 reactions correctly	1									
No response or wrong response	0									

KK0507 – Menggunakan perhubungan ruang dan masa

Question number	Rubric	Score
1(k)	<p><i>[Able to explain the relationship between the time to light up and the size of charcoal correctly]</i></p> <p>Answer:                      When the total surface area of charcoal increases, the rate of charcoal to light up increases /                      When the size of charcoal smaller, the rate of charcoal to light up increases</p>	3
	<p><i>[Able to explain the relationship between the time to light up and the size of charcoal]</i></p> <p>Answer:                      The total surface area of substance/charcoal, increases the rate of charcoal to light up</p>	2
	<p><i>[Able to state an idea of the relationship between the time to light up and the size of charcoal]</i></p> <p>Answer:                      The total surface area of substance/charcoal influence the rate of reaction</p>	1
	No response or wrong response	0

KK051201 – Pernyataan Masalah

Question number	Rubric	Score
2(a)	<p><i>Able to state the problem statement correctly</i></p> <p>Answer: Does the contact of iron with metal P inhibit rusting? / Does the contact of iron with metal Q increase rusting?</p>	3
	<p><i>Able to state the problem statement</i></p> <p>Does the contact of iron with more electropositive metal inhibit rusting? /Does the contact of iron with less electropositive metal increase rusting?</p>	2
	<p><i>Able to state the idea of the problem statement</i></p> <p>Does the contact of iron with more//less electropositive metal effect rusting?</p>	1
	No response or wrong response	0

KK0510 – Mengawal pembolehubah

Question number	Rubric	Score
1(b)	<p><i>Able to state three variables correctly</i></p> <p>Answer:  <b>Manipulated variable</b>                      Types of metal</p> <p><b>Responding variable</b>                      Rusting or iron</p> <p><b>Controlled variable</b>                      Iron nails// jelly solution</p>	3
	<i>Able to state any 2 variables correctly</i>	2
	<i>Able to state any 1 variable correctly</i>	1
	No response or wrong response	0

KK0512 – Membuat hipotesis

Question number	Rubric	Score
2(c)	<p><i>[Able to state the relationship between the manipulated variable and the responding variable correctly and with direction]</i></p> <p>Answer: When iron in contact with metal P, rusting of iron inhibit / When iron in contact with metal Q, rusting of iron increase</p>	3
	<p><i>[Able to state the relationship between the manipulated variable and the responding variable correctly and without direction]</i></p> <p>Answer: When iron in contact with more electropositive metal, rusting of iron inhibit /When iron in contact with less electropositive metal , rusting of iron increase</p>	2
	<p><i>[Able to state an idea of the hypothesis]</i></p> <p>Answer: The contact of iron with more//less electropositive metal effect rusting? The contact of iron with metals increase/inhibit rusting?</p>	1
	No response or wrong response	0

KK051205 – Senarai Bahan dan Radas

Question number	Rubric	Score
2(d)	<p><i>[Able to state the materials and apparatus correctly]</i></p> <p>Answer:                      Apparatus : Test tube, test tube rack                      Materials : Iron nails, metal P, metal Q, agar-agar, potassium hexacyanoferate (III) and fenolfthalein</p>	3
	<p><i>[Able to state the materials and apparatus to]</i></p> <p>Answer:                      Apparatus : Test tube, test tube rack                      Materials : Iron nails, metal P, metal Q, jelly, potassium hexacyanoferrate (III)</p>	2
	<p><i>[Able to state the materials and apparatus to ]</i></p> <p>Answer:                      Apparatus : Test tube,                      Materials : Iron nails, metal P, metal Q,</p>	1
	No response or wrong response	0

KK051204 – Prosedur

Question number	Rubric	Score
2(e)	<p><i>Able to state 6 steps:</i></p> <p>Answer:</p> <ol style="list-style-type: none"> <li>1, Iron nails, Metal P and Q are cleaned</li> <li>2. Two iron nails are coiled with metal P and Q each</li> <li>3. Three nails are put in to different test tube</li> <li>4. Jelly solutions is poured into the test tube and covered the nail</li> <li>5. The test tube left for a day</li> <li>6. Any observation are recorded</li> </ol>	3
	Able to state step 2,3,4,5,6	2
	Steps 2/4	1
	No response or wrong response	0

KK051203 – Penjadualan Data

Question number	Rubric	Score												
2(f)	<p><i>[Able to state the materials and apparatus correctly]</i></p> <p>Answer</p> <table border="1" data-bbox="451 558 1002 894"> <thead> <tr> <th>Pairs of metal</th> <th>Intensity of blue colour</th> <th>Intensity of pink colour</th> </tr> </thead> <tbody> <tr> <td>Nail</td> <td></td> <td></td> </tr> <tr> <td>Nail + P</td> <td></td> <td></td> </tr> <tr> <td>Nail + Q</td> <td></td> <td></td> </tr> </tbody> </table>	Pairs of metal	Intensity of blue colour	Intensity of pink colour	Nail			Nail + P			Nail + Q			3
Pairs of metal	Intensity of blue colour	Intensity of pink colour												
Nail														
Nail + P														
Nail + Q														
	<p><i>Able to exhibit the tabulation of data that include the following information:</i></p> <p><i>1.Heading for manipulated-pairs of metal/metal</i></p> <p><i>2.Heading for responding</i></p> <table border="1" data-bbox="418 1108 1200 1224"> <thead> <tr> <th><i>Pairs of metals</i></th> <th><i>Observation</i></th> </tr> </thead> <tbody> <tr> <td><i>Nail + P</i></td> <td></td> </tr> <tr> <td><i>Nail + Q</i></td> <td></td> </tr> </tbody> </table>	<i>Pairs of metals</i>	<i>Observation</i>	<i>Nail + P</i>		<i>Nail + Q</i>		2						
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<i>Nail + Q</i>														
	<p>Able to exhibit the tabulation of data that include:</p> <p>1. heading for manipulate/responding</p> <p>2. 2x2 table</p> <table border="1" data-bbox="418 1440 1200 1518"> <thead> <tr> <th>Pairs of metals</th> <th>Observation</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Pairs of metals	Observation			1								
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\*\*\*\*\*Maximum markah adalah 17

