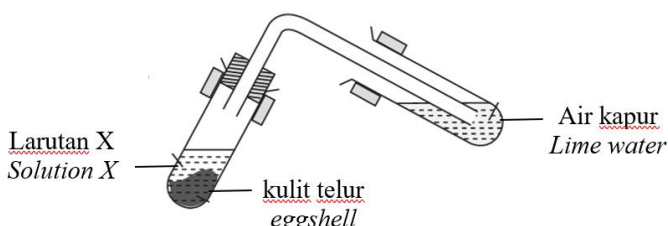


PERATURAN PEMARKAHAN  
PEPERIKSAAN PERCUBAAN SPM 2025  
KIMIA KERTAS 3 SET 2

| Soalan             | Peraturan Pemarkahan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Sub<br>markah                                   | Jumlah<br>markah          |   |                                                                              |   |                                            |                    |                           |   |                                                                              |   |                                            |  |  |  |  |                   |   |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|---------------------------|---|------------------------------------------------------------------------------|---|--------------------------------------------|--------------------|---------------------------|---|------------------------------------------------------------------------------|---|--------------------------------------------|--|--|--|--|-------------------|---|
| (a)                | <p>[Dapat menulis langkah-langkah menjalankan eksperimen bagi mengenalpasti asid dan alkali ke atas larutan X dan larutan dengan betul]</p> <p>1. <b>Sukat</b> [1.0-10.0] cm<sup>3</sup> larutan X dengan menggunakan silinder penyukat dan tuangkan ke dalam tabung uji.</p> <p>2. <b>Masukkan</b> [1 pek] kulit telur ke dalam tabung uji tersebut.</p> <p>3. <b>Rekod pemerhatian</b></p> <p>4. <b>Ulang</b> langkah 1 hingga langkah 3 menggunakan Larutan Y untuk menggantikan Larutan X.</p> <p>1. <i>Measure [1.0-10.0] cm<sup>3</sup> solution X by using measuring cylinder and pour into a test tube.</i></p> <p>2. <i>Pour [1 pack] eggshell into the test tube.</i></p> <p>3. <i>Record the observation</i></p> <p>4. <i>Repeat steps 1 to 3 using solution Y for replace solution X.</i></p>                                                                                                                                                                                                          | <p><b>1</b></p> <p><b>1</b></p> <p><b>1</b></p> | 3                         |   |                                                                              |   |                                            |                    |                           |   |                                                                              |   |                                            |  |  |  |  |                   |   |
| (b)                | <p>[Dapat membina Jadual Pemerhatian mengikut kriteria dengan betul]</p> <p>Kriteria:</p> <p>1. Heading : Pembolehkan manipulasi dan PEMERHATIAN</p> <p>2. Larutan : X dan Y</p> <p>3. Jawapan pemerhatian</p> <p>Contoh Jawapan</p> <table><tr><th>Larutan / solution</th><th>Pemerhatian / observation</th></tr><tr><td>X</td><td>Gelembung gas tak berwarna terbebas<br/><i>Bubble colourless gas released</i></td></tr><tr><td>Y</td><td>Tiada perubahan<br/><i>Remaind unchange</i></td></tr></table> <p><b>Reject : gelembung udara, tiada tindak balas,</b></p> <p><b>Tolak satu markah Jika terdapat barisan dan lajur yang lebih dan terlebih garisan.</b></p> <p>Contoh:</p> <table><tr><th>Larutan / solution</th><th>Pemerhatian / observation</th></tr><tr><td>X</td><td>Gelembung gas tak berwarna terbebas<br/><i>Bubble colourless gas released</i></td></tr><tr><td>Y</td><td>Tiada perubahan<br/><i>Remaind unchange</i></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> | Larutan / solution                              | Pemerhatian / observation | X | Gelembung gas tak berwarna terbebas<br><i>Bubble colourless gas released</i> | Y | Tiada perubahan<br><i>Remaind unchange</i> | Larutan / solution | Pemerhatian / observation | X | Gelembung gas tak berwarna terbebas<br><i>Bubble colourless gas released</i> | Y | Tiada perubahan<br><i>Remaind unchange</i> |  |  |  |  | <p>1</p> <p>1</p> | 2 |
| Larutan / solution | Pemerhatian / observation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                 |                           |   |                                                                              |   |                                            |                    |                           |   |                                                                              |   |                                            |  |  |  |  |                   |   |
| X                  | Gelembung gas tak berwarna terbebas<br><i>Bubble colourless gas released</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                 |                           |   |                                                                              |   |                                            |                    |                           |   |                                                                              |   |                                            |  |  |  |  |                   |   |
| Y                  | Tiada perubahan<br><i>Remaind unchange</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                 |                           |   |                                                                              |   |                                            |                    |                           |   |                                                                              |   |                                            |  |  |  |  |                   |   |
| Larutan / solution | Pemerhatian / observation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                 |                           |   |                                                                              |   |                                            |                    |                           |   |                                                                              |   |                                            |  |  |  |  |                   |   |
| X                  | Gelembung gas tak berwarna terbebas<br><i>Bubble colourless gas released</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                 |                           |   |                                                                              |   |                                            |                    |                           |   |                                                                              |   |                                            |  |  |  |  |                   |   |
| Y                  | Tiada perubahan<br><i>Remaind unchange</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                 |                           |   |                                                                              |   |                                            |                    |                           |   |                                                                              |   |                                            |  |  |  |  |                   |   |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                 |                           |   |                                                                              |   |                                            |                    |                           |   |                                                                              |   |                                            |  |  |  |  |                   |   |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                 |                           |   |                                                                              |   |                                            |                    |                           |   |                                                                              |   |                                            |  |  |  |  |                   |   |

[illegible]

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <div>1. <i>Functional diagram</i></div> <div><ul style="list-style-type: none"><li>- <i>Must use solution X only</i></li><li>- <i>The rubber stopper must protrude slightly from the end of the test tube</i></li><li>- <i>Both test tubes must be clamped.</i></li><li>- <i>The end of the delivery tube in the test tube containing solution X must not be submerged in the solution.</i></li><li>- <i>The end of the delivery tube in the test tube containing lime water must be submerged in the lime water.</i></li></ul></div> <div>2. <i>Labelling correctly</i></div> <div><ul style="list-style-type: none"><li>- <i>Label lines cannot cross, cannot be vertical</i></li><li>- <i>Label lines must be horizontal lines and cannot have arrows</i></li></ul></div> <div>Jawapan:</div> <div></div> |                 |      |           |                |                   |           |           |                    |                   |           |       |                 |             |                           |   |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------|-----------|----------------|-------------------|-----------|-----------|--------------------|-------------------|-----------|-------|-----------------|-------------|---------------------------|---|
| (f)                | <div>Dapat menyatakan definisi secara operasi bagi asid berdasarkan kriteria berikut dengan betul]</div> <div><div>1. Apa yang diperhatikan</div><div>2. Apa yang dibuat</div></div> <div>Contoh jawapan:</div> <div>Asid ialah bahan yang menghasilkan gelembung gas tak berwarna apabila kulit telur dimasukkan ke dalamnya.</div> <div><i>Acid is a substance that produce bubble colourless gas when eggshell insert into it.</i></div>                                                                                                                   | <div>1</div> <div>1</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2               |      |           |                |                   |           |           |                    |                   |           |       |                 |             |                           |   |
| (g)                | <div>[Dapat mengelaskan bahan kepada bahan berasid dan bahan beralkali dengan betul]</div> <div>Jawapan:</div> <table><tr><th>Bahan berasid</th><th>Bahan beralkali</th></tr><tr><td>Cuka</td><td>Ubat gigi</td></tr><tr><td><i>Vinegar</i></td><td><i>Toothpaste</i></td></tr><tr><td>Jus limau</td><td>Air kapur</td></tr><tr><td><i>Lemon juice</i></td><td><i>Lime water</i></td></tr><tr><td>Asam Jawa</td><td>Sabun</td></tr><tr><td><i>Tamarind</i></td><td><i>Soap</i></td></tr></table> <div>Betul semua</div> <div>Betul sekurang-kurangnya 3</div> | Bahan berasid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Bahan beralkali | Cuka | Ubat gigi | <i>Vinegar</i> | <i>Toothpaste</i> | Jus limau | Air kapur | <i>Lemon juice</i> | <i>Lime water</i> | Asam Jawa | Sabun | <i>Tamarind</i> | <i>Soap</i> | <div>2</div> <div>1</div> | 2 |
| Bahan berasid      | Bahan beralkali                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |      |           |                |                   |           |           |                    |                   |           |       |                 |             |                           |   |
| Cuka               | Ubat gigi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |      |           |                |                   |           |           |                    |                   |           |       |                 |             |                           |   |
| <i>Vinegar</i>     | <i>Toothpaste</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |      |           |                |                   |           |           |                    |                   |           |       |                 |             |                           |   |
| Jus limau          | Air kapur                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |      |           |                |                   |           |           |                    |                   |           |       |                 |             |                           |   |
| <i>Lemon juice</i> | <i>Lime water</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |      |           |                |                   |           |           |                    |                   |           |       |                 |             |                           |   |
| Asam Jawa          | Sabun                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |      |           |                |                   |           |           |                    |                   |           |       |                 |             |                           |   |
| <i>Tamarind</i>    | <i>Soap</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |      |           |                |                   |           |           |                    |                   |           |       |                 |             |                           |   |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Jumlah/Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 15              |      |           |                |                   |           |           |                    |                   |           |       |                 |             |                           |   |