

PERATURAN PEMARKAHAN MODUL AMALI BIOLOGI T5
TAHUN 2023

| No No | Kriteria pemarkahan <i>Marking criteria</i> | Markah Mark | Jumlah Total |
|-----------|---|-------------------------------|-----------------|
| 1 (a) | Murid menyatakan boleh ubah dimalarkan. <i>Student able to identify the constant variable.</i> Sampel Jawapan: Kepekatan amilase// kepekatan ampaian kanji (substrat)// dan pH medium tindak balas <i>Amylase concentration// starch suspension concentration (substrate)// pH of the reaction medium</i> | 1 | 1 |
| 1 (b) (i) | Murid dapat menyatakan faktor yang dimanipulasikan. <i>Student able to give the factor that is manipulated.</i> Suhu (rendaman air.) <i>(The water bath) temperature</i> | 1 | 1 |
| (b) (ii) | Murid boleh menerangkan bagaimana faktor di jawapan b(i) tersebut dikendalikan. <i>Student able to explain how the factors in answer b(i) are handled.</i> Menggunakan suhu air yang berbeza iaitu air suam/37°C dan ais/0°C Use different temperature which is warm water/37°C and ice/0°C. | 1 | 1 |
| (c) | Murid boleh menyatakan langkah-langkah ujian iodin <i>Student able to state the procedure of iodine test.</i> Rubrik : Kaedah - 1 (P1 dan P2) Pemboleh bergerak balas - 1 (P3) P1: Letak dua titis ampaian kanji ke dalam jubin berlekuk. <i>Place two drops of the starch suspension into the grooved tile</i> P2: Tambah setitis iodin ke dalam ampaian kanji. <i>Add a drop of iodine to the starch suspension.</i> P3: Perhati dan <u>catat</u> perubahan warna ujian iodin ke dalam jadual. <i>Observe and record the color change of the iodine test into the table.</i> | 1 1 1 P1/P2 + P3 | 2 |

| (d) (i) | <p>Murid berjaya merekod pemerhatian selepas 10 minit. <i>Student able to record the observation after 10 minutes .</i></p> <table border="1" data-bbox="1099 845 3174 1644"> <thead> <tr> <th data-bbox="1099 845 1582 1050" rowspan="2">Tabung uji <i>Test tube</i></th><th colspan="2" data-bbox="1582 845 2209 1050">Pemerhatian ujian iodin <i>Iodine test observation</i></th></tr> <tr> <th data-bbox="1582 1050 2209 1255">Awal <i>Initial</i></th><th data-bbox="2209 1050 3174 1255">Akhir <i>Final</i></th></tr> </thead> <tbody> <tr> <td data-bbox="1099 1255 1582 1459">X</td><td data-bbox="1582 1255 2209 1459">Biru gelap <i>Dark blue</i></td><td data-bbox="2209 1255 3174 1459">Kuning keperangan Yellowish brown</td></tr> <tr> <td data-bbox="1099 1459 1582 1644">Y</td><td data-bbox="1582 1459 2209 1644">Biru gelap <i>Dark blue</i></td><td data-bbox="2209 1459 3174 1644">Biru gelap Dark blue</td></tr> </tbody> </table> | Tabung uji <i>Test tube</i> | Pemerhatian ujian iodin <i>Iodine test observation</i> | | Awal <i>Initial</i> | Akhir <i>Final</i> | X | Biru gelap <i>Dark blue</i> | Kuning keperangan Yellowish brown | Y | Biru gelap <i>Dark blue</i> | Biru gelap Dark blue | | 2 |
|--------------------------------|--|--------------------------------------|---|--|------------------------|-----------------------|---|--------------------------------|--------------------------------------|---|--------------------------------|-------------------------|--|---|
| Tabung uji <i>Test tube</i> | Pemerhatian ujian iodin <i>Iodine test observation</i> | | | | | | | | | | | | | |
| | Awal <i>Initial</i> | Akhir <i>Final</i> | | | | | | | | | | | | |
| X | Biru gelap <i>Dark blue</i> | Kuning keperangan Yellowish brown | | | | | | | | | | | | |
| Y | Biru gelap <i>Dark blue</i> | Biru gelap Dark blue | | | | | | | | | | | | |
| (d) (ii) | <p>Murid berjaya menyatakan satu inferensi bagi pemerhatian pada tabung uji X. <i>Student able to state an inference for the observation on test tube X</i></p> <p>Sampel Jawapan: Amilase menghidrolisis molekul kanji kepada maltosa. <i>Amilase hidrolysed starch molecule into maltosa.</i></p> | 1 | 1 | | | | | | | | | | | |
| (e) | <p>Murid berjaya menulis hipotesis eksperimen ini. <i>Student able to write the hypothesis of this experiment.</i></p> <p>P1 : Pemboleh ubah manipulasi. <i>Manipulated variable (stand alone)</i></p> <p>P2 : Pemboleh ubah bergerak balas <i>Responding variable</i></p> <p>P3 : Hubungan antara PM dan PB. <i>Relationship between MV and RV</i></p> <p><i>Rubrik</i> Amilase menghidrolisis molekul kanji dalam air suam/37°C tetapi tidak dalam ais/0°C (dalam masa 10 minit). <i>Amilase hydrolyses starch molecule in warm water/ 37°C but not in the ice 0°C</i></p> | <p>P1 / MV: -1 H + P2 : -1</p> | 2 | | | | | | | | | | | |
| (f)(i) | <p>Murid berjaya meramalkan pemerhatian apabila ampaian di tabung uji X ditambah dengan asid hidroklorik. <i>Student able to predict the observation when the suspension in test tube X is added with hydrochloric acid.</i></p> <p>Tiada perubahan berlaku/ warna iodin kekal <i>No change/ the colour of iodine remain unchanged.</i></p> | 1 | 1 | | | | | | | | | | | |

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|---------|--|-------------|-----------|
| (ii) | Murid dapat memberi alasan kepada jawapan anda di (f) (i). <i>Student able to give the reason for your answer in (f) (i).</i> Amilase yang telah ditambah dengan asid telah dinyahasli/ berubah struktur tapak aktif enzim/cas pada tapak aktif enzim dan substrat berubah. <i>Amylase that has been added with acid has been denatured/ destroyed/ change the structure of the active site of the enzyme/charge on the active site of the enzyme and the substrate changes.</i> | 1 | 1 |
| (g) (i) | Murid boleh menjelaskan mengapa kotoran darah tidak dibersihkan sepenuhnya. <i>Student able to explain why the blood stain is not completely cleaned.</i> P1: Darah ialah sejenis protein <i>Blood is a type of protein.</i> P2: Protein dihidrolisiskan oleh protease (enzim). <i>Protein is hydrolysed by protease (enzyme).</i> P3: Oleh itu, penggunaan amilase (enzim) dalam serbuk detergen tidak akan berkesan ke atas protein. <i>Therefore, the use of amylase (enzyme) in the detergent powder would not be effective on protein.</i> | 1 1 1 | 2 |
| | <i>Any 2 Mana-mana 2</i> | | |
| (ii) | Murid boleh mencadangkan nama enzim yang sesuai untuk menyingkirkan kesan darah tersebut. <i>Student able to suggest the suitable name of the enzyme to remove the blood stains.</i> Pepsin / Erepsin / Tripsin / Protease <i>Pepsin / Erepsin / Trypsin / Protease</i> | 1 | 1 |
| | JUMLAH | | 15 |

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Biologi K3 Kedah 2023