

---

**SCIENCE**

**1113/01**

Paper 1

**For Examination from 2012**

SPECIMEN MARK SCHEME

**45 minutes**

---

**MAXIMUM MARK: 50**

---

This document consists of **6** printed pages.



| Question     | 1    |   |   |
|--------------|------|---|---|
| Part         | Mark | Answer                                      | Further Information   |
| (a)          | 3    | A cytoplasm<br>B cell wall<br>C nucleus     |   |
| (b)          | 1    | for photosynthesis / to absorb light        |   |
| (c)          | 2    | cell wall<br>(large) vacuole<br>chloroplast | any two for 1 mark each<br><br>If three answers given and one is wrong, give 1 mark only. |
| <b>Total</b> | 6    |   |   |

| Question     | 2    |   |                       |
|--------------|------|---|-----------------------|
| Part         | Mark | Answer  | Further Information   |
| (a)          | 2    | moving particles of air<br>hit sides  |                       |
| (b)          | 2    | speed up<br>collide with each other with more force<br>collide more often<br>move apart | any two from the list |
| (c)          | 1    | bigger / enlarge / burst / hotter   |                       |
| <b>Total</b> | 5    |   |                       |

| Question     | 3        |   |                      |
|--------------|----------|---|----------------------|
| Part         | Mark     | Answer  | Further Information  |
| (a)          | 2        | acid (burns)<br>wear safety specs / wear protective clothing  |                      |
| (b)          | 1        | 40  |                      |
| (c) (i)      | 1        | 6   |                      |
| (ii)         | 1        | The calcium carbonate has all reacted.  |                      |
| (d)          | 2        | mass of marble chips / calcium carbonate<br>size of marble chips / calcium carbonate<br>concentration of acid | any two, 1 mark each |
| <b>Total</b> | <b>7</b> |   |                      |

| Question     | 4        |   |                                  |
|--------------|----------|---|----------------------------------|
| Part         | Mark     | Answer  | Further Information              |
| (a) (i)      | 1        | straight line through both holes onto screen  |                                  |
| (ii)         | 1        | line drawn to show it hitting card <b>B</b> / missing hole in card <b>B</b>                   |                                  |
| (iii)        | 1        | light travels in straight lines   | Accept cannot pass through card. |
| (b)          | 2        | 2 straight lines, both through hole<br><br>lines hitting the screen, crossing over each other |                                  |
| <b>Total</b> | <b>5</b> |   |                                  |

| Question     | 5    |  |   |
|--------------|------|--|---|
| Part         | Mark | Answer   | Further Information                             |
| (a)          | 2    | insect: 3 pairs jointed legs                                 | Accept arthropod, exoskeleton and jointed legs. |
| (b)          | 2    | A is <i>Nepa cinerea</i><br>B is <i>Ilyocoris cimicoides</i> |   |
| <b>Total</b> | 4    |  |   |

| Question     | 6    |   |   |
|--------------|------|---|---|
| Part         | Mark | Answer  | Further Information   |
| (a)          | 2    | food must have a wide variety / contain all the essential nutrients<br><br>these should be in the correct amounts / proportions |   |
| (b)          | 1    | to provide fresh meat / eggs / source of protein  | Accept: They could not preserve some foods very easily.<br>Animals may produce young. |
| (c) (i)      | 1    | disease caused by the lack of an important nutrient e.g. vitamin or mineral   | If error in (c) (iii), mark (c) (iv) according to answer in (c) (iii).                |
| (ii)         | 1    | bleeding gums / sores which will not heal   |   |
| (iii)        | 1    | lack of vitamin C   |   |
| (iv)         | 1    | fruit contains vitamin C / he ate jam / he ate fruit  |   |
| <b>Total</b> | 7    |   |   |

| Question     | 7    |  |                     |
|--------------|------|--|---------------------|
| Part         | Mark | Answer   | Further Information |
| (a)          | 1    | D  |                     |
| (b)          | 1    | B  |                     |
| (c)          | 2    | wave centred on horizontal line and touching first line above and below it (as in B)<br><br>wave has one peak and one trough (as in D) |                     |
| <b>Total</b> | 4    |  |                     |

| Question     | 8    |  |   |
|--------------|------|--|---|
| Part         | Mark | Answer   | Further Information   |
| (a) (i)      | 2    | remains of living organism changed to rock / preserved in rock | allow named living organism<br>allow equivalent of rock, e.g. stone |
| (ii)         | 1    | B and C  | both required for mark  |
| (b)          | 1    | by the (hot) magma / by rock E                                 |   |
| <b>Total</b> | 4    |  |   |

| Question     | 9    |              |                     |
|--------------|------|--------------|---------------------|
| Part         | Mark | Answer       | Further Information |
| (a)          | 1    | larger than  |                     |
| (b)          | 1    | smaller than |                     |
| (c)          | 1    | the same as  |                     |
| <b>Total</b> | 3    |              |                     |

|                 |             |               |  |
|-----------------|-------------|---------------|--|
| <b>Question</b> | <b>10</b>   |               |  |
| <b>Part</b>     | <b>Mark</b> | <b>Answer</b> | <b>Further Information</b>   |
|                 | 5           | F C A H G E B | <p>correct order scores 5</p> <p>allow one mark if:</p> <p>starts with F</p> <p>ends with B</p> <p>has AHG (in that order) anywhere</p> <p>has HE (in that order) anywhere</p> |
| <b>Total</b>    | <b>5</b>    |               |  |