IQM3011 A3 Teacher reference commentary

IQM3011 Biology Assessment 3 Paper 2

Selected synthetic examples for teacher standardisation. Review before distribution.

Use the approved question paper and marking guidance alongside these extracts. Consult this proposed commentary after independent marking. Partial excerpts cannot establish a whole-script or whole-portfolio mark.

Selected task B3 c

The approved scheme explicitly credits a correct 50% with both marks, even without displayed working.

Example X

24/6=4.0 and 36/6=6.0 nmol min^{-1}; percentage increase = 50%.

Reference commentary: 2/2. Correct 50% with working.

Example Y

50%.

Reference commentary: 2/2. Correct 50% earns both marks under the explicit alternative rule.

Example Z

24/6=4.0 and 36/6=6.0 nmol min^{-1}; percentage increase = 50%.

Reference commentary: 2/2. Correct rates 4 and 6, and percentage 50. Correct 50% alone would also earn².

Selected task B4 c

Both numerical differences and their units are required.

Example X

lower CO_2 0.0; higher CO_2 2.0 µmol min^{-1}.

Reference commentary: 2/2. Both differences correct with units.

Example Y

0 and 2.

Reference commentary: 0/2. Neither result has units; each mark explicitly requires units.

Example Z

lower CO_2 0.0; higher CO_2 2.0 µmol min^{-1}.

Reference commentary: 2/2. Both differences correct with units.

Selected task B5 b

RNA complement, orientation and amino-acid sequence receive separate credit.

Example X

3'-AUG CCU GAA-5'; methionine-proline-glutamate.

Reference commentary: 3/4. Correct RNA bases 1, methionine 1 and remaining amino-acid sequence 1; orientation wrong 0.

Example Y

3'-AUG CCU GAA-5'; methionine, proline, glutamate.

Reference commentary: 3/4. Correct complementary bases 1 and amino-acid sequence 2; orientation wrong 0.

Example Z

5′-AUG CCU GAA-3′; methionine-proline-glutamate.

Reference commentary: 4/4. Correct RNA bases,5′ to 3′ orientation, methionine and proline/glutamate sequence.