

type and amount of primary and/or secondary data to be collected; conduct risk assessments; and consider research ethics, including animal ethics'. Candidates must understand the meaning of the sentence as well as knowing the meaning of terms such as 'primary data', 'risk assessment', and the difference between 'research ethics' and 'animal ethics'.

Advice for teachers

- The breadth and depth of content expected has been defined by previous examinations. Teachers should carefully consider past examinations to guide the extent to which each item should be taught.
- Teachers might find it helpful to prepare a summary of essential terms from the syllabus to act as a checklist for students.
- The syllabus provides a useful glossary that will assist with a common understanding of terms.

Comments on specific sections and questions

Section One: Multiple-choice (20 Marks)

The Multiple-choice section of the examination was the most successful. All candidates completed every question in this section. Questions 1, 2, 5, 11 and 17 were the most successfully completed with over 85% identifying the correct answer. Question 13 dealt with mechanisms of heat transfer and was answered correctly by only 28% of candidates. Questions 3, 8, 12, 14 and 15 were answered correctly by fewer than 50% of candidates.

Section Two: Short response (82 Marks)

Candidates were able to process data scientifically and represent it for a range of audiences. Terminology presented difficulties for some candidates and more attention should be paid to terms such as reliability, validity, primary and/or secondary data, risk assessments, continuous/discrete data and research ethics and animal ethics. Candidates often produced answers with little structure that never quite answered the question and/or were often repetitious. The more capable candidates showed a logical sequence in their responses that clearly linked to the question. Some candidates rewrote the question as the introduction to their response; a practice that earns no marks. Similarly, calculations often lacked detail. Calculations should be clear in showing how an answer was developed.

Section Three: Extended response (55 Marks)

Nearly every candidate completed all the questions in this section. Section Three offered candidates the opportunity to demonstrate skills in interpretation of novel situations. The nature of science, its methodologies, investigations and hypotheses were examined and generally, the responses were not strong. An understanding of terminology and concepts was required and the ability to identify weaknesses and strengths in experimental technique. Data provided was required in higher order interpretations. This proved difficult for some candidates. Most candidates preferred direct recall questions.