
LEVEL 3 CERTIFICATE AND EXTENDED CERTIFICATE **APPLIED SCIENCE**

ASC3: Science in the Modern World
Report on the Examination

TVQ01028 & TVQ01029
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General

This paper was accessible to students and there was good evidence the pre-release materials have been well used by schools and colleges to prepare the students for the exam.

Schools and colleges can further support students by widening their understanding of the various roles within science and also supporting students in being concise in their answers, particularly in the extended response question where many students wrote long answers on multiple additional pages. In many cases these very long answers rarely gained significant additional credit but will have taken time away from students answering other questions.

Question 1

This was a good introductory question which was well answered. 70% of students achieved full marks. 20% more achieved three marks because they only used source A and not source B.

Question 2

- 2.1 Only 56% of students achieved the mark here. Many who didn't achieve the mark referred to diagnosis rather than treatment.
- 2.2 6% achieved all three marks with nearly half achieving two marks and almost everyone achieving at least one mark. Most students achieved the mark for 'making the story more real' but few achieved the mark for 'supporting the information in the article'.
- 2.3 Those that got two marks (22%) got the '**correct** treatment **sooner**'. But all answers on the mark scheme were seen at some point (although most students gave only one statement for one mark).

Question 3

- 3.1 It was interesting that this easy calculation was the question that had the second highest number of none attempts (107 = 8%). Only 7% achieved all three marks.

34% of students achieved only two marks because they had stopped at the 187 385 and had not realised that the study was over a 9-year period (some had correctly followed through the rest of the calculation but had then incorrectly rounded the final answer so only achieved two marks).

Many (33%) achieved one mark either for saying 33.2% or because they rounded the 187 385 incorrectly.
- 3.2 11% achieved all three marks. Most common answers seen were the 'different audience' or 'different language' although students wrote these in a wide variety of ways.

Question 4

Only 4% of students achieved both marks. Those who achieved one mark (41%) tended to get the 'time to develop' mark.

53% didn't achieve any marks despite an attempt. Very few achieved a mark for the fact that different factors affect heart disease. And almost no students wrote about it being unethical to give someone a heart attack in an experiment.

Question 5

5.1 Only 2% of students achieved both marks and nearly 50% achieved one mark. Those who got a mark tended to achieve the 'risk factors' mark although many said this in a whole paragraph without actually saying risk factors. Some said 'to allow them to see trends in the results' rather than making it clear that it was the comparison idea that was important.

5.2 This was well answered and almost all students achieved at least one mark. Some students did choose other factors from the source not just age/gender/past medical history and achieved full credit for this.

Question 6

94% of students correctly identified '64.1%' from the source. Of the few who didn't achieve, most were those who, inaccurately, stated 64% or 'nearly two-thirds'.

Question 7

Very few students achieved the full two marks (1%) as most only made one statement.

Most who achieved one mark (74%) described the second bullet point regarding the idea that it was 'against their aims' but this was said in a very wide variety of ways.

Those who didn't get any marks tended to be just talking about smoking causing heart disease and not linking it to what the British Heart Foundation are trying to achieve.

Question 8

Only 45% achieved this mark. A few students described a pace maker but couldn't remember what it was called (a good description did achieve the mark). Of those who didn't achieve this was mostly because they stated ECG (not a treatment) but also some answers seen on drugs or heart bypass (not a medical device).

Question 9

This question had the most non attempts (125 = 7%) despite it being explicitly on the specification. Only 2.5% achieved four marks, with only 9% on three marks and 24% achieved no marks at all.

The marking point most achieved was the 'checking' mark with very few students achieving the 'submits article' mark. Many students stated that it was the researcher who sent the article to the reviewer rather than the idea that this was an anonymous person.

Question 10

This question was quite well answered. Nearly 40% achieved both marks (and mostly gave all three bullet points in the mark scheme). Of those who didn't achieve any marks some had stated 'it says out of date in the title' which was not creditworthy.

Question 11

There was a full spread of marks seen across the mark range. Many students wrote more than was expected and ran over onto additional pages. In general, the amount written **did not** relate to the final mark achieved. Some students had written several sides of additional pages and still achieved very low marks because they were discussing what the sources were about rather than evaluating their effectiveness.

There were some excellent concise answers seen which achieved the full nine marks and were written entirely on the space provided on the question paper. Students should be advised to try to be more concise in making their points. In some instances they had clearly spent far longer than was appropriate on this question and this may have limited the opportunities to achieve marks elsewhere on the paper.

Question 12

- 12.1 76% of students achieved both marks for saying that 'government funding decreased' and 'charity funding increased'.
- 12.2 66% of students achieved this mark. Those that didn't tended to say 'people are more aware of dementia' rather than 'there are more people with dementia'.
- 12.3 Only 15% of students achieved both marks for this calculation. And only 12% achieved a mark for stating 387 414 000 (or for continuing with the correct calculation but rounding it incorrectly). Many students had neglected to multiply the 387 414 by 1000.
- 12.4 83% of students got at least one mark for saying 'raise awareness', although there was a very wide variety of ways of actually saying this. Very few got any of the other marking points, with only 0.1% getting all three marks.
- 12.5 Over 90% achieved at least one mark, with 74% achieving at least two. Getting up to four marks (nearly 40%) was relatively easy for explaining 'number of people' and 'severity', and very few students referred to anything other than these two considerations.

Question 13

42% of students knew that quantitative meant numerical data and achieved one mark. But only 12% could properly identify that qualitative is 'descriptive' for the second mark. Some had identified 'words' or 'written' which was not enough since numbers can be 'written' as 'words'.

Question 14

86% of students achieved a mark by, on the whole, describing the role of an animal technician. Of the 32% who achieved two marks this tended to be for the chemist.

Very few students knew the role of a pharmacologist, with many incorrectly stating that they make the drugs rather than testing their effectiveness on the human body.

Use of statistics

Statistics used in this report may be taken from incomplete processing data. However, this data still gives a true account on how students have performed for each question.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the [Results Statistics](#) page of the AQA Website.

Converting Marks into UMS marks

Convert raw marks into Uniform Mark Scale (UMS) marks by using the link below.

[UMS conversion calculator](#)