It was pleasing that many centres ensured that their candidates’ Sample Work was between 10 and 20 pages in length and was attached to the script with just one treasury tag, thus enabling candidates and examiners to find the relevant work with ease.

Centres are reminded that the Sample Work should contain a section which includes the items referred to in Analysis – topic 2 in the specification, and Testing of ICT-related solutions – topic 9 in the specification.

Centres are also reminded that candidates should NOT submit;

- Sample Work that contains duplicate evidence for each item required
- Sections on design, implementation and evaluation

Candidates having many pages to look at may be at a disadvantage because they have too much to read through to find the relevant work during the examination.

It was pleasing to see that most candidates attempted all questions on the examination paper.

Centres are reminded to read this report in conjunction with the section in the specification where the expectations of candidates performing at grade A and E is described (Appendix A, pages 33 to 35) and the example answers in the mark scheme.

**Question 1**
Many candidates demonstrated good knowledge of this area and gave good explanations of methods but failed to include an actual device in their explanations, this did not gain marks. Some candidates missed the opportunity to gain marks by simply NOT naming a device which was asked for in the question. To gain full marks candidates stated three input devices which was what the question asked for.

**Question 2**
Many candidates answered this question well. Some candidates were unable provide the correct answer; many stated these would questions at the testing stage or when the project was complete (without naming the evaluation stage). In the second part of their answer candidates who did not gain marks just reiterated the wording of the stem of the question.

**Question 3**
This question was answered very well by some candidates, who gave a good account of a problem they had solved and the software they had used. The majority of these candidates who achieved good marks used problems which were resolved by providing a solution using Word-processing, Spreadsheet, Database, or Presentation software. To gain high marks candidates should have included the functionality of the software that they had used explaining how that had made their solution effective.

**Question 4**
On the whole this question was well answered with most candidates gaining 2 or 3 of the marks available.
Question 5
This question was on the whole very well answered with many candidates giving good explanations of the health issues avoided and the reasoning behind the use of the two items mentioned in the question. Some candidates only gained to marks for the health issues they mentioned as they did not give any explanation of how the adjustable chair and the ergonomic keyboard prevented the health issues.

Question 6
It was pleasing to see a number of candidates showing their understanding of the practical work undertaken during their study of this unit and gaining high marks as a result.

Question 6 (a)
Most candidates gained 1 of the 2 marks available. Many candidates were able to state a problem but failed to either expand on this by highlighting the proposed means of solving the problem. Some candidates used terms, when referring to a proposed solution, such as "an electronic system" or "a digital system" without giving reference to the system they were going to provide the client with.

Question 6 (b)
Most candidates only seemed to manage to score 1 of the 2 marks available. They were able to give at least one example of what is meant by a user but were then unable to further expand on this. Many candidates merely listed who their users were. This was not the purpose of the question.

Question 6 (c)
Generally this question was answered well with candidates describing a method of investigation. There were a few candidates who made reference to using the solution to understand the user's skill which showed little understanding of making the solution to meet the skills of the users.

Question 6 (d)
Few candidates gained full marks for this question. If they did understand what was being asked of them then they did make reference to inputs and maybe one process – but not enough to gain full marks. Candidates could have gained up to four marks for giving the inputs to their solution and up to four marks for explaining the processes. For example: One of the outputs was an invoice; the inputs required were customer name, customer address, product id and product quantity. One process was to multiply the quantity by the product price.

Question 6 (e)
The testing question was answered with mixed responses. Many of the candidates were able to describe validity of input with testing the validation of fields that were in their sample work. A number described presentation of output tests well but only a few were able to describe accuracy of output tests well and demonstrated their lack of understanding of the question by the answers they gave. To gain high marks candidates had to give examples of tests for all three reasons stated in the question.

Question 7a
Many candidates explained validation and verification techniques correctly, giving valid examples. However, some candidates lacked knowledge of these techniques and, therefore, did not gain any
marks. It is important that candidates have a thorough understanding of both validation and verification techniques.

**Question 7b**
This was a good differentiating question. The full range of marks was awarded. Many candidates were able to answer all aspects of the question, giving explanations. The less able candidates referred only to validation and gave a list of the checks that could have been used which did not gain high marks. Some candidates mentioned fields that were not in the example which did not gain marks. Candidates should have explained the validation and verification that could have been included for the form in the example when it was created as an online form.

**Question 8**
This question was answered well by many candidates. A high number of candidates gained at least half marks with the full range of marks being awarded. To gain high marks in this essay candidates needed to address all aspects of the question.

On the whole better candidates wrote very good answers to this question without veering from the topic, showing a good knowledge and understanding of the hardware, software and communication technologies required for the entrepreneur to start trading.

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**Mark Ranges and Award of Grades**

Grade boundaries and cumulative percentage grades are available on the [Results Statistics](https://www.aqa.org.uk/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](https://www.aqa.org.uk/results/statistics)