Pearson Edexcel

Examiners' Report
Principal Examiner Feedback

October 2020

Pearson Edexcel International Advanced Level In Information Technology (WIT11) Paper 01

Introduction - historical context

For those reading this report in future years, 2020 was the year when examinations were disrupted by COVID19.

The October 2020 paper was written for the June 2020 examinations. That examination series was cancelled and students were given calculated grades. The paper was offered in October for students who were dissatisfied with their calculated grade.

Due to decisions by the UK government, calculated grades were replaced by teacher assessed grades and very few students opted to sit the October examination.

As a result, the entry for this examination is very small. This means that statistical information is likely to be unreliable. Even comments such as 'most candidates got both marks for this question' could be misleading as the candidates cannot represent the full range of abilities and experience of a 'normal' entry.

Report format

In light of the very small entry, this report will not try to analyse the responses to each item. Most of the short items, where answers are listed in the mark scheme will be dealt with briefly. Instead, it will concentrate on the longer questions, where some examples and commentary might be useful to those preparing students for future examinations. This report should be read in conjunction with the mark scheme.

Report on individual items

1a. The mark scheme lists acceptable answers. No others were seen but any reasonable method of monetisation would be allowed as long as it is applicable to a blog about wildlife photography.

1b(i) and (ii) are multiple choice questions and the only correct answers are given in the mark scheme.

1c. Asks for one benefit and one drawback to Gathii of using free cloud storage

This is worth four marks but is effectively two lots of two marks.

The answers in the mark scheme are indicated to be 'such as' and are therefore not a definitive list. So, e.g. 'Gathi does not have to carry the burden of maintaining the devices the images were stored in as they are taken care of by the providers of the free cloud storages' would be worth two marks but it is not in the mark scheme.

The way in which cloud storage is used is changeable and new ways, and benefits and drawbacks, are likely to develop. The mark scheme may need additions in the future.

1d. Asks for two benefits to Gathii of being a member of an international photography forum.

This is worth four marks but is effectively two lots of two marks.

The answers in the mark scheme are indicated to be 'such as' and are therefore not a definitive list. The answers need to be relevant to the forum and must not be about publicising Gathi's blog as that is given in the question.
So, e.g. 'Gathi can communicate with people who might be interested in his blog and create a wider audience' would be true, but not worth any marks.
While 'He can also ask them about how he can improve his work so he can be more professional about what he does' would be worth two marks, consistent with the first example in the mark scheme.

1e. Asks for an explanation of what hypertext is.

This is worth three marks.

There were no three mark answers in the entry. It was clear that candidates were confusing the term 'hypertext' with 'hypertext markup language/html' or 'hypertext protocol/http'. There were some good answers about html/http but they only picked up the occasional marking point from the mark scheme.

2a. Asks about the information that a QR code contains that enables a scanner to read it.
This is worth three marks. The mark scheme lists all the acceptable answers.

2b(i). Asks for a description of how passive RFID works.

This worth four marks.

The mark scheme lists facts that could be part of a response. The examples give three possible ways of assembling those facts into a description. If a listed fact can be identified in the description, it should get a mark.

The examples are not a definitive list and other descriptions could get the marks, such as ' The RFID tag has an antenna, which picks up and is powered by a signal from the reader. The tag then returns its ID information.'

2b(ii). Asks how the shop could use RFID tags on the plants. The mark scheme lists acceptable answers. No others were seen but any reasonable use that is relevant to the context would be allowed.

Answers about preventing theft would not get a mark as that is given in the question.

2c(1). Asks about security risks when using an NFC card to pay for entry to a botanic garden.

This is worth four marks but is effectively two lots of two marks.

The answers in the mark scheme are indicated to be 'such as' and are therefore not a definitive list. The answers need to be relevant to the context of paying for entry, so answers about the card being stolen or skimmed/cloned would not be correct.

2c(ii). Asks how the data being transmitted by NFC can be protected.
This is worth two marks and the correct answer is to set up secure channels to prevent eavesdropping. Secure channels involve data encryption, so a simple answer such as encrypt the data would be worth one mark.

The question is about data being transmitted so answers involving card shields or other methods of blocking the card from being read would not be correct.

3a. Is a short practical question about a local area network in a museum.

This is worth six marks.

The mark scheme lists six items that must be shown in the diagram and gives an example of a network layout. Reasonable alternative names, applied consistently, are allowable. e.g. screen/touch screen/interactive display would all be allowed.

The specification does not give network diagram symbols, so anything sensible is allowed including simple boxes for each item. Marks are awarded for labelled symbols, not the symbols themselves.

The layout and symbols do not have to be the same as those in the mark scheme, as long as the components are labelled and in the correct locations.

3b. Is a short essay question about measures to reduce the threat of hacking for a local area network in a museum.

This is worth six marks.

The indicative content in the mark scheme includes a wide range of possible security measures. Good answers do not need to include all the measures shown.

The level three descriptor requires 'accurate and relevant knowledge, and a balanced and fully developed discussion'. Balance may be satisfied by discussing measures from two or more areas of the indicative content.
Relevancy can be shown by linking the measures to the context of the museum/LAN.

4a. Is a short practical question, about an entity relationship diagram.

This is worth six marks.

The mark scheme contains six items.
Candidates do not need to produce a fully complete diagram to get full marks. The first three items in the mark scheme only require three of the four possible lines/relationships/primary keys.

This approach was taken as was felt that the candidates have a lot to do in a limited time and three would be sufficient for them to show that they understood relationships and keys.

4b. Is a short essay question about the suitability of a relational database for handling structured data.

This is worth six marks.

The indicative content in the mark scheme includes a range of possible approaches. Good answers do not need to include all of them.

The level three descriptor requires 'accurate and relevant knowledge, and a balanced and fully developed discussion'. Balance can be shown by writing about two or more areas of the indicative content.
Relevancy is likely to be automatic, as long as the candidate is writing about a relational database. The descriptors for short essay, discuss questions are always the same and, in this case, the 'balanced' and 'accurate' parts would be weighted more heavily than the 'relevant' part.

Weaker answers are likely be about how the database described in Q 4a might be used, rather than addressing the more general question about handling structured data.

5a. Is a large practical about a dataflow diagram for a bus company.

This is worth twelve marks.

The mark scheme contains thirteen items and candidates do not need to produce a fully complete diagram to get full marks.

Appendix 7 of the specification shows the correct symbols to use in dataflow diagrams, but these were not repeated in the paper and alternative symbols were accepted as long as they were used consistently.

Processes were also interpreted fairly loosely, as long as the process could be recognised it did not have to be in a single box as shown in appendix 7.

Any layout configuration could be used, as long as the parts/processes could be identified.

5b. Asks for an explanation of why a dataflow diagram is useful in planning an information system.

This is worth three marks.

The mark scheme lists facts that could be part of a response. The examples give two possible ways of assembling those facts into a description. If a listed fact can be identified in the description, it should get a mark.

The examples are not a definitive list and other descriptions could get the marks, such as ' Due to the graphical nature of the DFD, it can be understood by both technical and non-technical people. It shows the boundaries of the system and how data moves between the system and outside entities.'

6. Is a long essay question about the disposal of used IT equipment.

This is worth twelve marks.

The indicative content in the mark scheme includes a range of possible approaches. Good answers do not need to include all of them but must include something about environmental and data security considerations as these are specified in the question. A conclusion is also required.

The level three descriptor requires ' accurate and relevant knowledge, a coherent and fully developed response, an awareness of competing arguments, and a conclusion supported by evidence'.

A good answer would probably include advantages and disadvantages of the two approaches given in the question, both for environmental and security matters. It is also likely to consider the costs involved as the scenario involves making a profit from a business.

There is no 'correct' conclusion. Both methods of dealing with IT equipment are used in the real world and presumably make a profit for the companies involved. The conclusion should however agree with the arguments made by the candidate.