

Principal Examiner Feedback

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Applied GCE ICT 6959

Unit 9: Communications and Networks

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General Comments

The case study is released well before the examination and many made good use of this. However, it remains the case that a large number of candidates did not write their answers in context, even when specifically asked to do so.

Comments on individual questions

Activity 1 – Research. Network Architecture.

(a)

A set of notes for Alan explaining the role of virtualisation in creating multiple emulations on one computer.

Most candidates mentioned the museum setting, but then proceeded to give a general definition of virtualisation and emulation, rather than answer the question. This resulted in numerous one and two mark answers but very few that were worthy of three.

(b)

A document for Alan giving appropriate information on file recovery.

For floppy disks, most candidates missed the fact that the disk format was unreadable by modern computers. This resulted in many non-scoring answers that explained how to connect up an external floppy drive.

For tapes, candidates were able to score by explaining how to connect a cassette player but few explained the next step of converting the sound file to something executable.

(c)

A document for Alan giving appropriate information on legal issues.

Many candidates had not done sufficient research for this activity. While it is true that under U.S. Law, for individuals, downloading abandonware would be illegal in most cases, there are significant exemptions for museums, libraries, archives, etc. UK / EU law also allows greater freedom for downloading. These matters were rarely mentioned, with most candidates sticking to the “it’s all piracy” line that tends to be given on the web sites that appear at the top of search engine listings.

Activity 2 – Network connectivity.

A document for Alan describing the architecture, benefits and drawbacks of each solution.

This question produced a good range of answers. Most candidates attempted the diagrams, although some of these were poorly drawn and badly labelled.

The distinguishing point between answers was context. There were numerous answers at the lower end of the mark range that gave generic benefits and drawbacks, which, although technically correct, had little or nothing to do with the scenario.

Better candidates were able to relate each solution to how it might work in the museum and gave context related benefits and drawbacks.

Activity 3 – Components of a network.

(a)

An estimate for the server and games stations for each solution.

The split here was between those candidates who gave details, make, model number, basic specification / capability, and those candidates who wrote e.g. 30 x PC at £100 = £3000.

Justification of purchases was not required, but evidence that appropriate choices had been made was.

(b)

A table for Alan which identifies the purpose, quantity and cost of each component.

The network was a little simpler for this scenario than most previous ones and many candidates scored well on this question. Marks were generally missed by not giving sufficient detail or having inadequate quantities of some items.

Activity 4 – Network design.

A design for the network with notes justifying each major decision.

Most diagrams were clear and well labelled, although a few candidates lost marks by not indicating locations. There were still instances of servers being used as hubs and of the printer being attached to an individual PC rather than networked as needed.

Most candidates produced something that could work but lost marks by simple omissions such as not labelling items and missing out the Internet access. As in previous examinations, the notes justifying each major decision regarding the positioning of network devices and equipment, frequently ended up being notes describing the layout or repeating what the case study said should be done.

Activity 5 – Benefits of networks.

(a)

A set of 5 cards, in context, explaining the TCP/IP model.

This question produced a good range of answers. As with Activity 2, the distinguishing point between good and bad answers was usually context.

There were numerous answers at the lower end of the mark range that gave a basic account of TCP/IP but failed to relate it to the scenario. Diagrams in these cases were usually restricted to the generic TCP/IP stack.

Better candidates were able to relate the cards to how TCP/IP might work in the museum and gave context descriptions and diagrams.

Most candidates were able to score the lower end marks for creating something in A4 landscape and using suitable language. Better candidates used artwork, box-outs and other techniques to produce something that really looked like a set of museum cards.

(b)

Advice on the DHCP problem.

Most candidates answered this question rather poorly, misunderstanding how DHCP works.

It ended up being an all-or-nothing response. Those candidates who understood what was happening tended to get all or most of the marks, the rest sometimes picked up one mark by including some technical information about how leases work in an otherwise wrong answer.

Standard Ways of Working

Most candidates gained both marks. Only a handful of candidates lost one mark by putting work in the wrong order or including extra pages.

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