Principal Examiners Feedback

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Applied GCE
6959 01 – Communications and
Networks

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Unit 9: Communications and Networks (6959)

General Comments

It was good to see that, for the first time, no research material was enclosed with any script.

The case study is released well before the examination but a disappointingly large number of candidates seemed to be unaware of essential parts of the content. Items which were specifically mentioned, e.g. the service ducts and access points, were ignored and marks were lost because of this.

Comments on individual questions

Activity 1 – Network management tasks

Notes for Tristram which describe transfer of domain control and trust relationships.

Most candidates were able to score well in the trust relationships task and could make a sensible decision as to which one to use. However, marks were often restricted due to candidates ignoring the requirement for diagrams.

Most candidates were able to write at least some notes about transferring domain control information, but it was obvious that, in many cases, there had been very little research. The process is well documented on numerous web sites and should have been easy to find. Weaker candidates tended to deal with this aspect far too briefly.

Activity 2 – Network connectivity.

Advice on connecting the main areas with fixed links.

The first part of the question, on topologies was mainly well answered. Most candidates were able to produce suitable, in context, diagrams with notes. They were also able to make a sensible, justified choice about which topology to use. Some lost marks by not using the showground context and a few appear to have misread the question entirely and described bus, ring, tree and other topologies instead of the ones asked for.

Candidates found parts (iii) and (iv) more difficult. Although many candidates mentioned length as a limiting factor for deciding between cable types, only a few actually gave those lengths and very few related the figures to the distances between the locations.
Electrical interference was also given as a factor, but few candidates then went on to mention the mains power cables running through the service ducts.

In part (b), the only equipment needed was that required for the fixed links that were dealt with in part (a). Too many candidates tried to include all the equipment for the entire network as described in Activity 3. When the equipment was listed in 3(b) as well it did not cause a problem with the marking, but some candidates did not bother copying and pasting to 3(b), or put a different set of equipment there.

Activity 3 — Components of a network.

Layout of sockets and cables for the new admin building

Table which identifies the hardware and cabling for the Admin LAN.

Part (a) was a little different from previous papers and it was good to see that many candidates made a good attempt at it. Unfortunately a lot of candidates went in entirely the wrong direction and produced a network diagram instead.

In part (b) there were a number of candidates who tried to include everything needed for the fixed links from Activity 2 as well as the required equipment for the admin buildings. Also, some candidates only looked at the **new** admin building rather than the whole admin LAN. The latter candidates lost quite a lot of marks since it meant that quantities of equipment would be too low, even if they mentioned the equipment type.

Activity 4 — Network design.

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

Most diagrams were clear and well labelled, although many candidates lost marks by not indicating locations. There were still instances of servers being used as hubs and of printers being attached to individual PCs rather than networked as needed.

Too many candidates tried to show the scale of the showground. Their diagrams had a huge space containing the arenas and halls and showed the Admin LAN cramped up into the top left-hand corner. This frequently resulted in the Admin LAN being shown incompletely.

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) *Saving costs by using a network*
This was poorly answered by many candidates. Many of the answers were about saving money in the construction of the LAN rather than its use. Others trotted out the usual network benefits without relating them to the scenario and showing how they would save money.

(b) *Security recommendations to protect against external attack.*
There were a lot of full mark answers to this question possibly reflecting the experience of candidates in using network security technology themselves.
A common reason for candidates failing to get marks was writing about internal or physical security aspects rather than securing the connection against external attack.

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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