Examiners' commentaries 2016–17

CO1108 Information systems: foundations of e-business – Zone B

General remarks

The overall performance on this paper was satisfactory, and the presentation of answers was much improved. Candidates structured their answers, making good use of headings and paragraphs. Most candidates started their answers to a new question on a new page, which made the scripts more readable.

Candidates are strongly urged to take care with their handwriting when writing under examination conditions. In addition, it is important to read the paper carefully and ensure that the correct number of questions are answered and that the answers provided contain the information which is asked for. Candidates should take care not to misread the questions on the examination paper.

The examiners would like to make the following observations which are of importance to future candidates.

- The paper consisted of **six** questions of which candidates were required to answer **four**.
- Read the questions carefully.
- Write clear and concise sentences.
- Make sure you answer all parts of questions.
- Start the answer to a question, or part of a question, on a fresh page.
- Write clear and concise sentences.

The remainder of this report provides a question-by-question discussion of aspects found by the examiners marking this paper.

Comments on specific questions

Question 1a

Most answers to the first part of the question correctly identified that the main components of an information system such as those proposed for Pharma Facials are the inputs, processing and outputs. Good answers then went on to describe what these inputs, outputs and processes might be, giving examples of each. Good answers to the second part of the question identified environmental factors that were specific to Pharma Facials, such as their customers and the wider competitive beauty markets.

Question 1b

There was some confusion in answering this question. Good answers provided clear definitions of each of the terms 'value chain' and 'supply chain' and received marks accordingly. However, some candidates experienced difficulties in making comparisons between the two concepts. Many good answers were presented using a table to outline both the similarities and the differences between the two concepts. Examples of each were also required to gain full marks.

Question 2a

Most candidates were able to identify the four phases of information software development correctly as initiation, development, implementation and operation and maintenance. Overall, some candidates were less successful in defining the key processes associated with each of these stages. As there are many processes associated with each stage and many of them are key, a wide variety of processes were acceptable in answering this question. Unfortunately, many candidates failed to include the last part of the question which required them to describe the output at each stage.

Question 2b

This was a straightforward question. Candidates were required to provide a detailed account of relational database systems design, to explain SQL as a structured query language and the role and importance of Normalisation. Where appropriate, some candidates included diagrams to illustrate their understanding of these concepts. These sorts of answers were good when accompanied by textual explanations. Please note that providing diagrams alone was insufficient.

Question 2c

Marks were awarded where an acceptable Entity Relationship diagram for Zoomba cars was provided.

Question 3a

In general, the term social context was poorly defined by candidates. Candidates who defined this term as the situation and relationships within which communication takes place, including social presence, organisational position, relationships, cultural norms, age, gender, etc. scored well on this question.

Question 3b

This was a very straightforward question. A broad range of problems were acceptable. Note that it was important to include **five** problems and to make clear which problems related to fax, which problems related to email, and which to both methods of communication.

Question 3c

This again was a very straightforward question. Video chat and video conferencing were popular choices of key video technologies used by businesses. Candidates lost marks on this question where they did not provide **three** reasons why these technologies address problems associated with just using email or visiting face to face. In many instances, answers were limited to just two reasons. Candidates are reminded of the importance of checking what is being asked for and answering all parts of a question in full.

Question 4a

This question carried 15 marks and therefore required a detailed answer. Most candidates provided accurate basic descriptions, but some answers were minimal in length. Most candidates described firewalls correctly but omitted to include that they control both incoming and outgoing network traffic. Good answers provided further details; for example, explaining how they protect systems. Most candidates described intrusion detection systems correctly as those that monitor the most vulnerable points on the network to detect and deter unauthorised intruders. Good answers provided further details; for example, explaining that they check for attacks in progress, and can

shut down sensitive areas if unauthorised traffic is detected. Most candidates correctly described antivirus software as something that is designed to check computer systems and drives for the presence of computer viruses and worms. Candidates further explained that it is also used to eliminate malicious software. Good answers provided further details; for example, adding that antispyware software combats intrusive and harmful spyware programmes.

Question 4b

This question was well answered. Most candidates gave good accounts of identity theft as a form of pretending to be someone else and explained the role that phishing plays in enabling this to happen. Good answers included evil twins, pharming, etc.

Question 5a

This question was generally well answered. Candidates were able to describe the differences between the three types of network: LAN, Metropolitan and WAN. Good answers included actual figures for the differences in each. The most common errors candidates made were failing to describe the similarities between these three types of networks and failing to give any examples.

Question 5b

Candidates who answered this question well provided a definition at the outset as to what is meant by the term networking technologies. Candidates then went on to discuss how company network infrastructures include the traditional telephone system, mobile cellular communication, wireless local-area networks, videoconferencing systems, a corporate website, intranets, extranets and an array of local and wide-area networks, including the internet. It was important to discuss **six** key networking technologies.

Question 5c

Candidates who answered this question well described factors such as client/server models, TCP/IP and the role they play in e-business and communication. Candidates also discussed IP addresses and DNS. Other issues included were major internet services such as e-mail, Usenet, chatting, instant messaging, Telnet, FTP, the World Wide Web and related technologies, HTML and RSS, for example. The discussion of legal issues was also appropriate for this answer.

Question 6a

Candidates answered this question well, providing definitions of Management Information Systems, Transaction Processing Systems and Decision Support Systems. Some good answers provided a table detailing the criteria for evaluation on the vertical axis and the specifics relating to each of these criteria under the column headings for each type of system on the horizontal axis.

Question 6b

Good answers provided a definition of a Knowledge Management System. Candidates then went on to describe how a KMS provides support for acquiring, storing, distributing, and applying knowledge, as well as processes for creating new knowledge and integrating it into the organisation. Candidates were then required to apply this information to the processes within Bob and Roberta's Pet Supplies. Further issues could be discussed, for example, intelligent techniques to codify knowledge and make it permanently available to members of the organisation. Credit was given to candidates who provided appropriate real-world examples.