BCS Higher Education Qualification

Profession Graduate Diploma

April 2022

EXAMINERS' REPORT

Management Information Systems

General comments

- Candidates need to ensure that they read the questions carefully before attempting to answer so that they provide appropriate responses to the question set.
- Candidates need to ensure that they write sufficient and relevant content for each question; one question is worth around 50 minutes of effort, so a few sentences are simply not enough to gain more than a few marks.
- Examples should be realistic and relevant to the question: providing examples about completely unrelated topics and saying very little in detail will not score well (if at all).
- Keeping up with contemporary developments and implementations of MIS in corporate settings, through extensive reading in books and journals, and through real-world experiences, is not only good professional practice but also excellent preparation for this examination.
- There were references to internet-based (mobile, cloud, etc.) computing in more than one question, but each of these questions had a different focus. The answers to a question should therefore reflect the difference in focus, yet many candidates provided very similar answers to more than one of these questions.

Questions Report:

Question	Comments
A1	This question was attempted by just over half of candidates. Unfortunately, only a third of these candidates were able to achieve a pass level or higher (i.e., at least 10 out of 25). Instead of describing an essential information systems' function for each of the four corporate areas, in answer to Part (a), many candidates focussed on the tools that could be used to provide that support. For instance, instead of discussing an information system to support attendance management or management of staff development within HR, candidates focussed on the IT to support the information system (e.g., describing the spreadsheet or database tools themselves or what an ERP system is). This reduced the marks that could be attained. Some candidates described the corporate function (e.g., Human Resources) rather than a specific information system operating within it, which also reduced mark attainment as, again, this was not the principal focus of the question. Some answers were very brief and this also limited potential mark attainment. Overall, candidates could do well in the future to understand the difference between an IT tool and its application (within the provision of an information system), and also that they write more and provide more relevant detail than a few sentences for a 16 mark question (i.e., around 30 minutes of examination writing time).

	Part (b) varied widely in quality, with only a few candidates appreciating that this was about the control of data flows between two information system functions. This required a clear description of the data needing to flow between the two chosen information systems, and then how the flow(s) could be controlled to ensure a quality data 'exchange'. This is where the application of an ERP system might have been described, with its central repository providing a seamless interface between the two information systems, or where transformations of the data syntax and/or semantics needed to ensure effective data transfer between the two information systems could be discussed. Disappointingly to the examiners, many candidates did not provide suitable answers to this part, instead providing generic answers, such as top-middle-lower management descriptions, or not attempting it at all.
A2	This question was also attempted by just over half of candidates. Unfortunately, less than a third of these candidates were successful at achieving a pass level or higher. This was the first question on the paper that made reference to mobile computing. Its key focus was on the necessary changes to Office Automation Systems to accommodate the new ways of working that come with mobile devices, especially in relation to confidentiality, integrity and availability. It explicitly required candidates to write a structured (i.e., well organised and logical) analysis as well as to state any assumptions made: some marks were therefore explicitly apportioned to these aspects of the candidates' answers. Good answers to this question: 1. demonstrated understanding of the key terms such as Office Automation Systems, confidentiality, integrity and availability; 2. articulated the key changes to working practices which office automation systems now need to reflect within their scope/functionality (e.g., ability to link from mobile devices to central files at any time/place, use facilities such as email and video-conferencing through the mobile device, etc.); 3. typically considered the changes necessary to OASs with respect to each one of the three categories – confidentiality, integrity and availability, systematically in turn. 4. Provided one or more assumptions that were both reasonable and authentic. Most candidates, whilst able to explain a subset of the key terminology and structure a suitable discussion, did not write about the changes needed in OAS to a sufficient depth and breadth to incur more than a few marks. Assumption statements were often limited, lacked specificity and were largely unrelated to the focus of the question.
A3.	This was a very popular question, attempted by approximately 85% of the candidates. But like the other questions before, only around a third of these candidates were able to achieve a pass level or higher (i.e., at least 10 out of 25). The question centred around the move from an in-house server data storage arrangement to a cloud-based solution. Candidates were asked to identify and discuss five questions that they, as an MIS manager, would want to ask the Head of IT who is planning the move (the data storage configuration of the organisation

	being under the Head of IT's responsibility). The answers to these questions would determine whether or not support would be given to the Head of IT's plans. There were a few excellent answers provided by candidates who clearly understood their principal remit as MIS manager being to ensure the move is right for the MIS function, i.e., that it has minimal negative impact and maximum benefit on MIS provision now and in the foreseeable future. The questions described by these candidates centred around: the timescale and plan for data storage migration, and auditing the effective migration of data; the possible impacts on MIS performance, availability/reliability, growth and staff, and; whether the MIS position was adequately reflected within any feasibility assessment prepared for the evaluation of the proposal. A number of candidates did not appreciate that the cloud solution was only targeted towards data storage, and not the applications that draw upon the data and their interfaces). Some candidates provided canned answers that outlined the benefits of cloud computing solutions versus in-house systems, or described in-house development projects versus outsourcing development projects: neither of these approaches were suitable answers to this question, and therefore incurred few if any marks.
B4.	This question was attempted by around 60% of candidates. The pass rate was slightly better on this question, with around 45% of candidates being able to achieve pass level of higher. Part(a) required candidates to decide on the extent to which they agreed/disagreed with a senior figure in corporate accounting's statement that: "The uncontrolled use of spreadsheets in businesses has caused many more problems than benefits". Examples were expected to illustrate points made, some marks being explicitly allocated for these. Good answers to this part provided a summation as to the candidate's extent of agreement/disagreement (and typically agreeing) with the statement, followed by a cogent and in-depth argument to support the stance taken. Some of the arguments presented for agreement included: • the potential for staff to set up their own spreadsheets that overlap with others in both data and processing (formulae), leading to inconsistencies and uncertainties as to which is (most) correct. • uncontrolled access to spreadsheets leading to changes being made in an uncontrolled manner, with insufficient auditing/version control to trace back update histories. • The difficulty in finding the right spreadsheet to support a given situation, leading to delays in its use. The consequent impacts on management decision making and operational performance were also described. Unfortunately, candidates did not always provide an overall statement of their position. Some simply listed general benefits and weaknesses of spreadsheets generally; marks could only be awarded where the point was relevant to the statement/question. A few candidates confused databases with spreadsheets.

	Several answers contained only a few sentences, which further limited the scope for high marks. Part (b) was often better answered than Part (a), with candidates taking the opportunity to outline guidance in the form of version control, pooling spreadsheets in a central file store, and keeping record/index of these spreadsheets, their contents and location. Some answers focussed more on the setting up of the spreadsheets to ensure greater data integrity on input and/or sharing of data sources. Lower marks were typically awarded to those not writing enough relevant content and/or not covering enough sufficiently-distinct guidelines.
B5	This question was attempted by just over half of candidates. Disappointingly, very few candidates managed to achieve a pass level or higher (i.e., at least 10 out of 25). The average mark on this question was extremely low. Like A2, this question made reference to mobile computing. However, the focus of this question is on the different ways by which 'front-end' access to corporate information can take place, and how development approaches need to embrace a new 'norm' of mobile access. Part (a) required candidates to explain three differences between desk-based access and mobile-based access to corporate information. Whilst answers were limited in both breadth and depth, many candidates did demonstrate <u>some</u> understanding around the relative flexibility of mobile access in terms of both place and time. The better answers offered fuller discussions as well as covering technical networking differences (and hence the additional security that might be needed when allowing mobile-based access) and the use of VPNs. Some candidates felt that providing more answers than three would result in better marks: this is not the case and when this occurs, the examiner awarded the marks from the best three attempted although the candidate would be better spending time focussing on the number requested to include breadth and depth. Most answers to Part(b) were weak, as candidates failed to grasp the requirements of the question. An answer in the form of a blog entry was expected, not just an essay. The blog was specifically targeted towards a particular audience i.e., MIS professionals. Thus, writing something that, for instance, defines what an MIS is does not seem to be appropriate content for this particular audience. Finally, almost all candidates did not pick up the focus of the question being on the development of future MIS provision using a "Mobile-First" model. The best answers articulated (in a suitable blog format) that mobile devices are fast becoming the native environment for MIS access, and that all aspects of development (and associated methodologies) – planning, analysis, design, implementation - need to embrace this new direction as 'business as usual' and not simply as an add-on.