BCS Higher Education Qualification

Profession Graduate Diploma

November 2020

EXAMINERS' REPORT

MANAGEMENT INFORMATION SYSTEMS

General comments
As in previous sessions, candidates should ensure that they understand all aspects of the curriculum and that they read the questions fully before attempted answers. When a question is based on a case scenario, candidates should ensure that, unless directed otherwise, any required supporting illustrative examples are tailored to that case scenario.

Question number: A1
Syllabus area: Office Information Systems (OIS) –including videoconferencing and e-mail, Measurement of MIS performance and capabilities
Total marks allocated: 25
Examiners' Guidance Notes
In part a), a number of candidates did not use the format of a memorandum in their response. This format was requested in the question, and those who failed to do so did not score as highly as they could have. Again, in part a), a number of candidates failed to provide THREE benefits of OIS – and so lost marks. Where candidates merely listed, rather than describing, the benefits the candidates did not score highly. While some good responses were given to part b), a number of candidates provided unsuitable or implausible answers to this section. A metrics based approach would have been the most obvious, although other mechanisms were marked on their credibility and suitability.

Question number: A2
Syllabus area: MIS and mobile computing, Developments in hardware, software, Internet and communications capabilities and their implication for MIS.
Total marks allocated: 25
Examiners' Guidance Notes
A number of candidates lost marks in this question because they did not provide the FIVE aspects of MIS design or implementation which were requested. In other cases, marks were lost by candidates because there was too much similarity between several of the aspects discussed, resulting in material being duplicated. Clearly, marks cannot be awarded twice for the same material in this context. A number of candidates stated assumptions in their response which clarified and enhanced the nature of their answer. This resulted in them gaining the maximum benefit from their work.

Question number: A3
Syllabus area: End-user development of MIS and its implications
Total marks allocated: 25
Examiners' Guidance Notes
In part a) of this question, THREE reasons for either supporting or rejecting this view were requested. A number of candidates failed to provide this number. Those who provided fewer did not have access to the full range of marks available, so in general did not score well. A few candidates provided more than three reasons, which led to their responses being more thinly reasoned. Where more than three reasons were given, the candidate was marked on the best three in each case. A few candidates did understand the wording of part a) and provided reasons which BOTH supported AND rejected the statement. The wording of the question was clear, and candidates are advised to read the question carefully to avoid misinterpretation. The range of answers to part b) was, understandably, wide. A number of perceptive answers were provided and the relationship between end-user computing and a traditional MIS environment was clearly understand by many candidates.

Question number: B4

Syllabus area: Management Reporting Systems, Decision Support Systems, Data warehouse development methodologies and techniques, data warehouses and data mining facilities

Total marks allocated: 25

Examiners' Guidance Notes

Attempts made to answer this question evidenced a variable amount of understanding in each of the relevant topics, with a general lack of deep understanding regarding metadata.

In Part a), candidates appeared most familiar with the Management Reporting Concept (i.e., a system that focuses on fixed, periodic reporting, potentially across a wide range of operational functions and based on internal data generated via organisational transaction processing systems), and were able to provide a fair evaluation with that of the interactive, sometimes model-based, exploratory and focussed analysis of internal (and possibly external) data found within individual DSS.

For Part b), many candidates provide descriptions of multi-dimensional and two-dimensional (i.e., relational) databases, instead of focussing on their design, as the question requires. As such, there was limited descriptions of star-schema/snowflake schema design versus ER modelling/table design in many answers, which limited the number of marks that could be awarded. Candidates would do well to ensure that they fully read and understand the question before writing their answers.

Part c) was not attempted by some candidates: candidates should ensure that they attempt all parts of a question, as not doing so reduces the maximum amount of marks that is possible to achieve. When attempted, candidates were generally able to articulate that either or both aim to uncover yet-unknown and useful patterns and trends in the data to support effective decision making. Where candidates were less certain was on their differences. The best answers described the different data focus of the two approaches (i.e., data mining focusing on mining structured data whereas text mining is focussed on written text which is inherently less structured) and how these may be accomplished (e.g., data mining through a number of AI and/or statistical techniques such as neural networks, text mining through some form of sentiment analysis which requires transformation of qualitative text to a more quantified form).

Part d) was often not attempted: again, candidates should ensure that they attempt all parts of a question to ensure access to the maximum marks possible. When the question was attempted, most candidates were able to state that both concepts are types of metadata, i.e., 'data about data'. There was less evidence in answers of candidates' appreciation of the differences between technical metadata (i.e., that which describes the technical manifestation of organisational data objects, such as what would normally be described in a database schema) and business metadata (which captures relevant business understanding/context of key organisational data objects – such as semantics and synonyms, data object interrelationships, policies and standards).

Question number: B5

Syllabus area: Management activities, roles and levels; Executive Information Systems (EIS) and Executive Support Systems (ESS); The application of On-line Analytical (OLAP)/Business Intelligence (BI) tools in supporting management decision making; overall approaches to MIS development, Data warehouse development methodologies and techniques;

Total marks allocated: 25

Examiners' Guidance Notes

Candidates evidenced a general appreciation of what was required in a BI system that supported senior management to monitor the company's KPIs, by describing the provision of a KPI dashboard portal with drill down capabilities. Best answers were able to contextualise their descriptions with examples based on the given scenario, including diagrams of the proposed KPI dashboard and of the results of clicking on menu options/hotspots.

Some candidates also described how an easy-to-use portal could be provided to retail managers by which the fixed monthly report could be selected and/or ad-hoc analysis of retail sales data could be undertaken; however, several candidates did not remember to include these aspects in their answers.

A good level of general ETL understanding was evidenced by several candidates, many of whom were also able to highlight the outlet sales databases as key sources of data for the BI system. However, very few realised that data about the KPIs themselves would also be a useful source. Some answers to this part of the question also reflected a sound understanding of how the ETL process ensures a consistent view of data is housed within the target data warehouse of the proposed BI system, providing supporting examples of possible ETL transformations (albeit not always tailored to the current case scenario).

A few candidates provided a discussion around phased development within their answer to the final part of the question: candidates should be in a position to attempt all parts of a question, as not doing so reduces the maximum amount of marks that is possible to achieve. Some answers confused phased with traditional approaches. Whilst any relevant illustrative example was better than nothing, these could have been significantly improved if made specific to the case scenario.