

BCS Higher Education Qualification

Certificate in IT

October 2022

EXAMINERS' REPORT

Information Systems Section A and B

General comments

The overall results were disappointing. The candidates appear to have a limited understanding of some of the syllabus. Our advice to the candidate is to study the syllabus, read the question carefully, give yourself time to formulate your answers. Note the number of marks allocated to a question indicating the amount of time and detail required

Questions Report:

A1	Syllabus mapping: 1.1, 1.3, 2.1
	<p>This question was answered reasonably well apart from part a, and was the most popular.</p> <p>a) Many candidates drew flow charts and there were very few decent high level data flow diagrams. Centres need to ensure that they teach that data stores are a key element on level 1 DFS</p> <p>b) The question asked for a list and description of each element of a data flow diagram, examples of the above case study were expected. It did not ask for the purpose of the diagram although that was credited when it mentioned processes and some answers included entity relationship descriptions. The 'actors' in the diagram are external entities not entities.</p> <p>c) There are several fact-finding techniques which could be identified and defined, but few answers appreciated the reason for why it is necessary and were just memory dumps. Fact finding techniques are not a waste of time. The most commonly used methods were expected.</p> <p>d) Before a system is developed, there are several key issues which should be included to support the feasibility of proceeding with the development, some more crucial than others. Only three were required and these should be listed and described clearly. Once again there did not seem to be an understanding of why a feasibility study was required</p>
A2	Syllabus mapping: 2.1, 2.3,
	<p>This was a popular question but poor answers to part b and it appears there was a lack of understanding of Agile systems.</p> <p>a) A short discussion was expected outlining reasons for the development of methodologies and identifying that different methodologies need to be used depending on diverse situations. Examples of different methods was acceptable with reasons when they are most appropriate.</p> <p>b) The understanding of the definitions of hard and soft systems relates to the differing problem-solving methods associated with system development. Each have unique approaches and techniques which should be described. It was apparent that few candidates understood these. A hard system is not just about hardware and a soft system is not just about software, although these are part of any information system.</p> <p>c) The Agile methodology approach to system development has many features which should not be confused with the more traditional prototyping methods. Typical features should be described and can be related to commercial approaches,</p>

	d) Too many answers included the same features in part c rather than the advantages and disadvantages in comparison to traditional methodologies.
A3	Syllabus mapping: 2.1, 3.1, 3.2
	<p>Many answers confused implementation methods with a description of the system development life cycle.</p> <p>a) Apart from those answers confusing the requirement for implementation stages, too many answers were repetitive with similar advantages and disadvantages. This indicates that there is not an appreciation of the ways systems can be implemented for use by diverse users.</p> <p>b) There were very few correct answers to this part and no demonstration of understanding the logical to physical design mapping enabling the physical development of an information system.</p> <p>c) Those candidates who did attempt this question were aware of a SWOT analysis but most answers just described its meaning. Description and examples of each element of the acronym is expected together with its purpose.</p>
A4	Syllabus mapping: 1.1, 1.3, 1.4, 3.1, 3.2, 3.3,
	<p>a) Timeboxing is one feature of an Agile approach and its use is to relate the elements of time, resources and functionality. Most of the candidates did not answer this part of the question.</p> <p>b) Candidates should be aware of the use of an entity relationship diagram and the degree of cardinality within the relationship and give an example. Few answered this part, those that did attempted to describe its purpose and merely indicated the degrees of relationship without an example.</p> <p>c) As this is a 16mark question, identifying four aspects of security, describing their purpose and examples was expected. Candidates seemed to be confused with classifying the different elements of security and could not relate them with integrity, privacy and control. It was poorly answered.</p>
B5	Syllabus mapping: 1.4
	The answers included a list of reasons for failure and definitions of a database and its security rather than tackling the issue of policy, plans and mechanisms.
B6	Syllabus mapping: 1.1
	Candidates concentrated on data as in a typical data processing environment. Many quoted the managerial levels of data. Data is all around us and has many functions and formats, it is these that were expected. There are many examples of all types.
B7	Syllabus mapping: 1.3
	Questionnaires are created to assist with information gathering from a variety of users. This could be providing detail of how a system works for the developers or getting opinions from the users of the developed system. Many answers discussed interviews and interviewees. The questions should be relevant to eliciting information from the respondents. Closed questions can / could be machine marked and that open questions really need to be process by a human. Very few answers mentioned the analysis of the results of a questionnaire.
B8	Syllabus mapping: 3.4
	This question was not about a database failure as such but more about disaster recovery and mitigation, legal issues, security, reliability of the cloud provider etc.
B9	Syllabus mapping: 3.2, 2.3
	SSADM is a structured methodology with typical tools, techniques and refined stages. PRINCE2 is a project management methodology which works alongside SSADM developments.
B10	Syllabus mapping: 2.4, 3.2

	Answers included typical HCI guidelines but often failed to relate to visually impaired users. The use of screen readers, textual audio interpretation alongside design considerations was expected.
B11	Syllabus mapping: 1.3, 2.2
	Some answers showed confusion between the two terms JRP and JAD. The inclusion of stakeholders, users and developers to produce prototypes incrementally is the basis of RAD. Advantages and disadvantages were sometimes confused with Agile techniques.
B12	Syllabus mapping:
	Marks were given for a definition, proof of calculations and results.

Additional Examiner comments:

There is evidence that some candidates are not adequately prepared for the exam and give little understanding of what an information system is, how development progresses, the different approaches that can be made and tools and techniques which can be used.

Any actions taken or suggested:

Candidates are advised to look at the new e-book resource provided by BCS in conjunction with previous papers. They should also be aware that questions may not be phrased the same but the indicative content is the same.