

BCS Higher Education Qualification

Professional Graduate Diploma

October 2022

EXAMINERS' REPORT TEMPLATE

IT & the Environment

Your Moderator is required to submit 1 Examiner report per module to BCS

General comments

In general, candidate responses demonstrated some subject knowledge at a basic level but were unable to make cohesive discussion arguments that would indicate a deeper understanding of the topic. Approximately half the candidates were prepared for the rigour of the examination.

A few candidates drew diagrams or pictures to support the discussion in their answers. Where appropriate for a question, this is encouraged in future examinations as this helps to communicate more about the proposed solution.

A significant proportion of candidates lost marks for failing to respond in context. It is very important that, when answering questions, candidates read the question and supporting information thoroughly and answer the question in the appropriate manner.

Questions Report:

A1	Syllabus Coverage: Environmental Impact Analysis, 3.1.
	<p>In general, this question was answered well at a basic level, but more detailed answers were required to score higher. Some answers listed a relevant idea, maybe with one or two sentences of detail. Better answers were able to expand that discussion.</p> <p>Some answers focused on 'people' factors. Whilst they might be relevant issues for the situation, e.g. lost workplace culture of being together, think about the IT aspects as they will be more relevant for this paper, e.g. use of video conferencing to provide some interactions.</p>
A2	Syllabus Coverage: Remote Sensing 2.1, 2.2.
	<p>Only a few candidates attempted this question and for the most part it was the structure of the articles that prevented higher marks. Descriptions of the remote sensing options were minimal – answers identified some relevant examples, but did not expand on those. For candidates preparing in the future, consider thinking about a good structure to communicate technical information.</p>
B3	Syllabus Coverage: Legislative and Regulatory Provisions, 1.1. The Environmental Impact of Information Systems 4.2.
	<p>This question was poorly answered by most candidates, who appeared to be focused on the wider choices between local and remote data centres (transport, reduction of local CO2 and impacts on the local economy, construction) rather than the mixed renewable/non-renewable v 100% renewable, there was some discussion of data security, but this wasn't the question asked. The use of "storage space" appeared to</p>

	<p>prompt some candidates to say more about data security matters than the IT and the Environment aspects.</p> <p>In part B, A lot of the candidates focused on ISO14001 instead of the wider aspects of the cleansing of data from IT equipment, the circular economy (reduce, reuse and recycle), and then finally the use of specialist contractors. It is unclear why EIAs (Environmental Impact Assessments) were mentioned as this is usually an element of a planning requirement.</p>
B4	Syllabus Coverage: IT in the Service of Power Generation & Energy Conservation, 6.1.
	There appeared to be some confusion between the concepts of “smart grid” and “smart sensing”, in general candidates described only a basic knowledge of smart grid technologies, very few were able to discuss the equipment the utility would require, but most were able to describe the basic benefits for a householder.
B5	Syllabus Coverage: The Environmental Effects of Communication Systems, 5.1.
	Only a few candidates attempted this question and the answers pointed towards a limited understanding of the concept of smart sensing. Better answers could talk about possible sensors, their use, transmission of data and how that data could be processed to generate information and warnings. Few candidates covered the use of past data to predict future events or the use of AI for predictive analysis.