BCS Higher Education Qualification

Professional Graduate Diploma

October 2023

EXAMINERS' REPORT TEMPLATE

Software Engineering 2

Questions Report:

A1	
	This question had the highest number of candidates attempting it (91%), but the 3rd highest pass rate of 67%. Much of this success can be attributed to the candidate's knowledge of Prototyping models (part a and b). A small number of candidates simply chose to describe the agile approach across all parts of the question rather than present a logical and coherent argument for the role of prototyping in modern development frameworks.
Part a)	Many candidates demonstrated good knowledge of the basic prototyping process practices. Answers were often descriptive of the terminologies in the question (such as "longevity") without evidencing relevant application to the process model itself.
Part b)	Most candidates were able to list the advantages and disadvantages of traditional prototyping; few demonstrated an awareness of the role and practice of prototyping in modern development methods.
Part c)	Many candidates appeared to have difficulty in matching, applying, and explaining Life Cycle choices when set against the requirements detailed in the Case Study.
A2	
	This question was the 3rd most popular, attempted by 77% of candidates, but ranked 4th with a pass rate of 35%. The subject covered is software evolution, but many candidates seemed to think this was synonymous with the SDLC. Most candidate responses demonstrated cursory knowledge of software evolution and software maintenance.
Part a)	Some candidates gave good outlines of the software evolutionary process, but many wrote extensively on the software development life cycle, methods, and techniques.
Part b)	In this section most candidate responses demonstrated limited knowledge of software maintenance, the different categories, and struggled to associate, describe and justify choices made in the given case study scenarios.
Part c)	"preventive/preventative" software maintenance was the least understood term, and many responses demonstrated this by resorting to "common sense" descriptions often external to the software itself.
A3	
	This question was the least popular and was attempted by only 2 candidates. Significant sections of this question were not attempted (part b) and sadly, neither candidate achieved a pass grade.

Part a)	A small collection of bullet-pointed notes presented by both candidates, demonstrating some cursory knowledge and awareness of the benefits of using "assertions" in software design.
Part b)	No attempt was made to answer this section.
B4	
	This question was answered by under half of the candidates, but those that did had a good grasp of the use of design patterns. The vast majority of candidates passed well.
Part a	This was answered competently by almost all candidates, showing that they understood why it is beneficial to use design patterns. They were less confident though in providing convincing examples.
Part b	Candidates were competent in discussing why reusing design patterns is a good thing but were far less so when discussing when reuse was not appropriate.
B5	
	Most candidates attempted this question and almost all demonstrated competent understanding of project management. The marks were slightly lower than B4.
Part a	Candidates were expected to imagine themselves in the role of a new project manager. Most correctly discussed the first three Ps (people, process, product) but were less competent in discussing the fourth P (projects)
Part b	Candidates were generally familiar with the agile approach but seemed to have difficulty relating it to the four Ps.