BCS Higher Education Qualification

Professional Graduate Diploma

November 2020

EXAMINERS' REPORT

Software Engineering 2

General comments[1]
The pass rate for this offering of the paper was slightly higher than in recent previous sittings. Candidates need to be aware that this paper is set at Professional Graduate Diploma level and therefore, simply stating the definition of terms used in a question will not gain the full credit for that question. The expectation is that candidates will be able to discuss aspects of the syllabus within the current context of the software engineering profession.

Question number: 1
Syllabus area: Various Software life Cycle Models
Total marks allocated: 25
Examiners' Guidance Notes
This question was attempted by 79% of candidates, and 69% of them achieved a pass mark. For a)(i) most candidates did not provide a sufficient explanation of the spiral model. In a)(ii), this part was poorly answered. Only a small number of candidates answered reasonably well i.e., they explained how all three models 'fit' into the spiral model. Some candidates discussed the three models only! Part b) was answered reasonably well. In part c) Some answers were adequate, but many candidates provided answers which were too general i.e. they did not focus on the case study.

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[1] *Insert moderator comments on the examination*

Question number: 2
Syllabus area: Software management
Total marks allocated: 25
Examiners' Guidance Notes
This question was attempted by 61% of candidates but only 40% of them achieved a pass mark. In general the results were disappointing. Part a) Only a small number of candidates answered this part sufficiently well. Many candidates attempted to explain an 'iterative' nature of the planning process by focusing entirely on unstable/changing requirements instead. Part b) Only a handful of candidates provided adequate answers. Many candidates discussed irrelevant issues/topics e.g. stages in software life cycle models, etc. Part c) Again, only a small number of candidates provided adequate answers. Some candidates discussed e.g. cost estimation techniques only (e.g. COCOMO)

Question number: 3
Syllabus area: Software maintenance
Total marks allocated: 25
Examiners' Guidance Notes
This question was attempted by 77% of candidates and 60% of them achieved a pass mark. Part a) Some candidates answered this part reasonably well, but many answers were irrelevant e.g. 'types' of maintenance, etc. The majority of candidates gave acceptable answers for part b)(i) whereas in (ii) many answers were irrelevant and/or demonstrated only a limited understanding of the topic. In part c) only a small number of candidates answered this part reasonably well. Many answers were irrelevant (e.g. detailed discussion of OO techniques) or contradictory.

Question number: 4
Syllabus area: Software Process Improvement
Total marks allocated: 25
Examiners' Guidance Notes
This question was attempted by 37% of candidates but only 44% of them achieved a pass mark. There seemed to be a general lack of knowledge and awareness of software process improvement concepts, methods, and associated frameworks. In part a) many candidates had some knowledge of the CMM framework, but very few appreciated how its application can improve the software process. In part b) responses to this section were either missing or poorly attempted, demonstrating limited knowledge of implementation issues within the overall software process cycle.

Question number: 5
Syllabus area: Software reuse, Software Product Lines, Design Patterns
Total marks allocated: 25
Examiners' Guidance Notes
This question was attempted by 51% of candidates. The pass rate was a disappointing 28%.
A good number of candidates attempted this question, but many answers were based on a single recognisable keyword, namely that of "reuse". The rest of the question in many cases was not attempted.
In part a), most candidates provided adequate answers to the term software reuse, but the subject of design patterns was often neglected.
Many candidates did not attempt and answer to part b). Only a very small number of candidates appeared to grasp the concept of a "production line", and even fewer its technical usage in respect of software engineering.