

**BCS Higher Education Qualification**

**Diploma**

**March 2019**

**EXAMINERS' REPORT**

**Systems Analysis and Design**

**General comments<sup>1</sup>**

A reasonable range of marks for this section with most candidates obtaining a pass. None of the three questions attracted consistently low or high marks (section A).

Questions 4 and 5 were much more popular than Question 6. The best results were achieved for Question 4. The Question 5 and 6 results were substantially worse.

**Question number: A1**

**Total marks allocated: 25**

**Examiners' Guidance Notes**

This question was attempted by 60% of candidates, most of whom obtained a pass mark for the question. The average mark was 14/25 or 56%. In Part (a) very few candidates were able to make use of swimlanes. Most candidates made a good job of Part B. The results for Part C were mixed - virtually all candidates were able to explain the purpose and structure of DFDs but many were less clear about activity diagrams - often confusing them with flowcharts.

**Question number: A2**

**Total marks allocated: 25**

**Examiners' Guidance Notes**

This question was attempted by 80% of candidates, most of whom obtained a pass mark. The average mark was 16/25 or 64%. Many candidates provided a very full response to Part A. With a range of techniques being discussed. The answers to Part B were not so strong with a number of candidates continuing the discussion from Part A - as if the best way to validate data was to encourage user involvement.

**Question number: A3**

**Total marks allocated: 25**

**Examiners' Guidance Notes**

This question was attempted by 70% of candidates, most of whom obtained a pass mark for the question. The average mark was 16/25 or 64%. Most candidates gave a very full discussion of the waterfall model but were vaguer about the differences between this approach and more agile ones.

**Question number: B4**

**Total marks allocated: 25**

**Examiners' Guidance Notes**

Nearly 94% of candidates attempted this question and the substantial majority of them achieved a pass mark for their answers.

Many answers for part (a) were good and the majority of candidates were able to practically demonstrate the normalisation process. Some candidates however did not provide proper explanations and did not show primary and foreign keys.

Part (b) was answered generally well. Some candidates had problems with relationships (with cardinalities of relationships in particular). Some candidates produced ERDs which were inconsistent with the normalised relations/tables.

**Question number: B5**

**Total marks allocated: 25**

**Examiners' Guidance Notes**

This question was attempted by appr.83% of candidates but only 37% of them achieved a pass mark.

Part (a) was answered below expectations. Some candidates were unable to give proper and correct examples of relationships between classes. A number of candidates also had problems with definitions/explanations of relationships between classes (association and aggregation in particular). Also a small number of candidates did not draw relevant fragments of class diagrams.

Part (b). This part caused problems. Only a small number of candidates answered this part reasonably well. Many candidates produced irrelevant answers.

**Question number: B6**

**Total marks allocated: 25**

**Examiners' Guidance Notes**

Only a small number of candidates (33%) attempted this question, and the results are slightly worse than the results of Question 5. Some answers were adequate, but many answers were very weak.

Part (a) caused some problems. However a number of answers were adequate.

Part (b) also caused some problems. A number of answers were adequate.

Part (c): A small number of candidates produced reasonable state charts/state machines. Some candidates produced 'activity diagrams' instead.