61011 short answer exam report

Q1 (out of 7 marks, mean: 4.2 s.d.: 2.0)
(a) Candidates generally performed well on this part of the question. Partial credit was given ...
(b) This was book work. A number of students did not state the convergence theorem, but simply ...
(c) Part c challenged the candidates to understand how a logistic regression would converge when ...

Q2 (out of 8 marks, mean: 6.3 s.d.: 1.6)
(a) Candidates were awarded two marks for any two sensible statements comparing the decision ...
(b) Book work was completed well by the vast majority of candidates, as reflected by the high ...

Q3 (out of 6 marks, mean: 3.8 s.d.:1.5)
(a) Candidates were asked to calculate sensitivity, specificity and F1 score from a given confusion ...
(b) Most correctly identified the best classifier. A mark was given for correct identification and for a ...

Q4 (out of 4 marks, mean:1.9 s.d.:1.2)
Question 4 had a typo that was not discovered during exam preparation or moderation. Our approach ...

Ignoring this, question 4 was particularly challenging, involving events (test result) that were ...

Our approach to mitigate the impact of this is discussed below.
Application of Bayes rule was not straightforward in this question, and we were surprised to see very few candidates attempt to solve the question using probability trees.

**MCQs**

The average mark was 16/25 (s.d 3.5). The minimum and maximum marks were 6 and 25, respectively.

**Mark moderation**

To minimize the impact of the typos in question 4, we considered two strategies: (a) grade using the question as it stands, (b) regrade excluding the question all together (i.e. marked out of 21). To avoid penalizing candidates who performed well on question 4, we finally decided on a hybrid approach, in which the final mark was the higher grade of the two strategies.

We checked all 130 students, to see if the strategy caused any to move either up or down a degree boundary. No student was disadvantaged. Furthermore, no student moved up over the 50 or 60 boundary, but 5 students moved over the distinction line to just above 70. The average grade raises from 67% (s.d. 7.5%) to 69.4% (s.d. 7.8%).