PGT Exam Performance Feedback
2016/2017 Semester 1

COMP61021 Modelling and visualization of high-dimensional data Ke Chen

Comments The vast majority of students attempted all the questions in two sections. Their marks are roughly subject to a normal distribution. The highest mark is 90% but the lowest mark is only 26%.

For multiple choice questions in Sect. A, the averaging mark of this section is around 59.1% with standard deviation of 16.3% overall. Apart from a few easy questions, the mistakes made seem diversified across the remaining questions. Apart from one question regarding linear algebra (only less than 20% students gave the correct answer), no questions stood out to be extremely hard. For the exactly same set of 25 questions, the average this year is the lowest since MCQs were introduced in this examination. This reflects that a quite few of essential concepts were not understood well.

Regarding Sect. B, most of students generally performed well for question B.1, a question that is regarding the book knowledge and its answer is given in the lecture note. A common mistake spotted is that most of students did not fully understand an alternative PCA formulation. Regarding question B.2, most of students gave a right answer but some points were overlooked; e.g., converting similarity to distance to enable it to be used in MDS. Regarding the question B.3, most students could describe two cost functions used in LLE while some students did not know what are parameters to be learned. However, only a few students properly explained the essential idea behind LLE. Regarding the formal analysis question in B.4, most of students made an attempt. I am pleased to see that a few students gave a correct proof. The overall performance on this formal analysis question was considerably better than that in last year, which suggests the cohort of students this year have mastered those formal analysis skills and transferable knowledge, a goal set for the top-tier students.

In summary, the overall performance this year appears to be better than that in last year (with nearly the same class size). It is worth mentioning that the distribution of examination marks looks quite consistent with that of the lab coursework assessment although the performance in examination is poorer than that in coursework.