General Remarks

This is the first running of this course unit and the exam was fully online. This meant that all sections were taken via Blackboard. There was an issue with Section A, Question 20 where there was a mistake in the question therefore every student has been awarded the mark for this question. Other than this there were no further serious issues.

A total of 275 students sat the exam, with a mean mark of 79.9%.

There was 1 student with a mark below 40%, 0 of these being below 30%. Some of these students may be able to pass the unit with suitable coursework marks. There were 227 students who achieved first class marks of 70% or above in the exam.

Table 1 below gives an overview of the performance across questions.

<table>
<thead>
<tr>
<th>Question</th>
<th>Marks</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online (Section A)</td>
<td>33.4 (40)</td>
<td>83</td>
</tr>
<tr>
<td>B</td>
<td>Q1</td>
<td>2.6 (6)</td>
</tr>
<tr>
<td></td>
<td>Q2</td>
<td>3.7 (4)</td>
</tr>
<tr>
<td></td>
<td>Q3</td>
<td>2.7 (3)</td>
</tr>
<tr>
<td></td>
<td>Q4</td>
<td>3.8 (5)</td>
</tr>
<tr>
<td></td>
<td>Q5</td>
<td>1.9 (2)</td>
</tr>
</tbody>
</table>

Table 1: Performance Breakdown

Section A was completed online. The overall performance on this section was good, with a mean score of 33.4 (83%). This was to be expected, as the online section contained more questions focused on recall of material as opposed to analysis or application of concepts. Blackboard provides an Item Analysis, including an assessment of the Discrimination power of questions and the Difficulty of questions. Discrimination indicates how well a question differentiates
between students who know the subject matter and those who don’t. A question is a good discriminator when students who answer the question correctly also do well on the test. The Difficulty value assesses how many students answered correctly.

Blackboard’s analysis suggests that 27 questions were good and 12 were fair in terms of discrimination. There were 32 easy questions, 12 medium and 1 hard question. The medium/hard questions were spread throughout the exam.

Section B

Question 1 - Mean: 2.6 (43%)

Most students were awarded partial credit for this question. However, many failed to get all three correct programming constructs. Some students misunderstood the question and instead answered if, elif, etc.

Question 2 - Mean 3.7 (93%)

Excellent responses and understanding shown for the file mode operations. Some students missed marks for not explaining fully, i.e. that when using the write mode, the existing file is overwritten without warning.

Question 3 - Mean 2.7 (90%)

This question demonstrated the students debugging abilities and their understanding of passing arguments to functions, default parameter values, assignment and basic arithmetic, and return values from functions. Excellent understanding demonstrated.

Question 4 - Mean: 3.8 (76%)

Overall this question was answered well. Many students however did not provide pseudocode in their answer instead writing Python code which is not what was asked for. As we knew the exact number of iterations through the loop a For loop should have been used and the use of a While in this program was not given credit. Partial credit was given to those students who produced Python code if their logic was reasonable.
Question 5 - Mean: 1.9 (95%)

This question was answered excellently. For the most part every student correctly defined what the Break & Continue commands do in Python. To gain full marks a reference to them needing to be used in a loop needed to be made.