High performance computing practical mark scheme

Mark allocation break down

1) Technically correct answers to all questions	60 %
2) Quality of free text answers	8 %
3) Quality of graphical outputs	10 %
4) Quality of code	8 %
5) Answers to challenge questions	14 %

This hand in makes up 50% of the mini project analysis code mark.

Mark scheme rationale

The reason for this mark scheme is to bring the distribution of marks more in line with that which you would expect from an essay question. Components 2-5 above are together worth 40% of the overall grade and are deliberately more subjective and open ended. The challenge questions are stretching, they are open ended and will require you to use your initiative to find out how to do things not explained in the course material. Clearly it's possible to get a distinction grade without attempting the challenge questions, but it not likely to get a very high distinction. You don't have to do the challenge questions and you are not advised to attempt them unless you're happy that everything else is completed. Often having even a brief go at the challenge questions does help boost your grade so try if you have spare time.

*1 - **The questions on the worksheet** have marks [in brackets] that provide the mark for this section. Functions are largely tested automatically; text answers and graphs are not. If the answer is technically correct full marks will be awarded.*

*2 - **Quality of the text answers** is judged based on the following factors… i) good use of language (free of errors) ii) clarity (easy to read and grasp the points being made), iii) level of understanding demonstrated (some text answers are correct but superficial - these will get a lower score), iv) brevity (a long answer that repeatedly makes the same points does not portray a deeper understanding and will also get a lower score).*

*3 - **Quality of graphical outputs** is judged based on the following factors… i) is there a title, ii) are there clear axis labels, iii) is there a key if needed iv) are the axes on a suitable scale v) is the data clear for the reader to see vi) is the output visually pleasing and clear to interpret. Graphs will be judged based on their .png output so please ensure this looks how you want it to look, has the required filename, and is included in your submission. Highest marks will be given to figures that could be put in a publication on the topic in their current form.*

*4 - **Quality of code** is judged based on the following factors… i) is there a suitable level of commenting explaining how things work ii) are parameters suitably named iii) are there any problems getting the code to run (e.g. redundant bits of test in the main file or paths to locations on the students' computer) iv) does the code run in reasonable time (efficiency is important and we don't want to wait more than a minute for each graph to be produced)*

*5 - **Answers to challenge questions*** each question is marked separately taking into account all the above factors - each challenge question has equal weight however a particularly stunning challenge question might be awarded a bonus that can offset another challenge question being skipped over. Challenge questions altogether make up a maximum of 14% of the marks.