

PHYSICS PYTHON ASSIGNMENT

All questions should be submitted in a single Jupyter notebook (.ipynb file). You are encouraged to use online resources (e.g. Python documentation) when answering the questions. You should work independently.

TOTAL MARKS FOR ASSIGNMENT: [100 marks]

CODE QUALITY

- Import libraries and define simulation constants at the top of the Notebook. [2 marks]
- Use Markdown cells to write headings for each question part. [2 marks]
- Use `print(packagename.__version__)` to print the version number for each package you import. [2 marks]
- Use sensible and expressive variable and function names. [2 marks]
- Split code into logical blocks using code formatting (for example, brackets) and whitespace. [2 marks]
- Print numerical answers to the screen and display plots at a reasonable size. [2 marks]
- Write in-line code comments (starting with a #) that describe the intention of your code and any potential problems. You can also use Markdown cells for more lengthy comments. [4 marks]
- Avoid code duplication where possible. Use appropriate functions and data-types, including those from external libraries. Use control structures appropriately. [4 marks]

TOTAL MARKS FOR CODE QUALITY: [20 marks]