

Subject: A Level Computer Science

Exam Board: OCR

Mock paper 1: 2 hours 30 minutes

Mock paper 2: 2 hours 30 minutes

Computer Systems (140 marks)

Paper 1 Content:

- Structure and function of the processor
- Input, output and storage
- System Software
- Applications Generation
- Software Development
- Types of programming language
- Compression, Encryption and Hashing
- Databases
- Web Technologies
- Networks
- Data Types
- Boolean Algebra
- Computing related legislation
- Moral and Ethical Issues

Algorithms and Programming (140 marks)

Paper 2 Content:

- Types of Programming Language
- Data Types
- Data Structures
- Thinking abstractly
- Thinking ahead
- Thinking procedurally
- Thinking concurrently
- Programming techniques
- Computational methods
- Algorithms

Useful revision resources:

- Craig and Dave YouTube Channel
https://www.youtube.com/c/craigndave/playlists?view=50&sort=dd&shelf_id=4
- Teach ICT H446
https://teach-ict.com/2016/A_Level_Computing/OCR_H446/OCR_H446_home.html
- A Level OCR Computer Science course textbook by PG Online
- Isaac Computer Science
<https://isaacomputerscience.org>
- OneNote Classbook / Microsoft Teams
- Practice Papers on OneDrive
- Physics and Maths Tutor (Computer Science area)
<https://www.physicsandmathstutor.com/computer-science-revision/a-level-ocr>

Revision Tips

Use flashcards for key theory. Test yourself with the flashcards “little and often”.

Exam question practice: Test yourself as regularly as possible and compare to mark scheme answers (refer to the structure of the exams below).

Longer answer questions: The 9 and 12 mark questions are marked in bands: L1, L2 and L3. In order for you to get into the top band, you need to be able to apply your knowledge and explain in detail, you cannot just bullet point or list advantages and disadvantages for example. Use the KAE method.

Gaining top marks in algorithm questions: For you to be successful in this type of question, you need to do the following two things: Write in pseudocode NOT a programming language. By doing this you will not lose marks as syntax does not apply, if you were to write in Python then you may lose marks due to syntax. Add comments to your pseudocode. Most questions will award 1 mark for making a comment on your code. You will still achieve this mark even if your code is incorrect. You need to be aware that if a question is out of 5 marks, the marks are awarded in order therefore you may achieve 1 mark for a comment but the remaining 4 marks are linked to the code. For example, if you state a certain input at the top of the pseudocode you will achieve another mark (so far 2/5). However, if you then incorrectly state the logic but the output is correct you will lose the other 3 marks. This then caps you at 2 marks for this question.