OCR A Level CS H446

Y13 Revision Guide

January – May 2026

Exam Specification and Exam Board	OCR H446
Past Paper Questions	https//www.ocr.org.uk/qualifications/asandalevel/computerscienceh046h446from2015/assessment/
Useful Revision Websites	https//isaaccomputerscience.org/topics/a_level?examBoard=all&stage=all#ocr https//www.youtube.com/watch?v=dVi2B7fGVm4&list=PLCiOXwirraUBj7HtVHfNZsnwjyZQj97da
Exam Info	10/06/26 PM 2.5 hours Component 1
	17/06/26 AM 2.5 hours Component 2

Name of Course

Week	Activity 1	Activity 2
1 05.01.26	**1.1 Characteristics of contemporary processors** **Diagram of CPU Components** Create a labeled diagram of the CPU showing the ALU, Control Unit, and Registers. **Summary of Fetch Decode Execute Cycle** Write a concise explanation of each stage with examples. **Research CPU Performance Factors** Prepare a report that discusses how clock speed, number of cores, and cache size affect performance, including real world examples. **Pipelining Explanation** Research pipelining, create a visual representation, and explain its benefits with examples. **Architecture Comparison** Write a comparative analysis of Von Neumann and Harvard architectures, highlighting their differences.	**2.1 Elements of computational thinking** **Abstract Model Creation** Devise an abstract model for a given situation (e.g., online shopping) and present it graphically. **Inputs and Outputs Identification** For a specific problem, list all inputs and outputs and create a flowchart to illustrate the process. **Steps to Solve Problems** Break down a complex problem into sequential steps and create a pseudocode outline. **Decision Points Discussion** Write a short essay discussing various decision points in a provided solution. **Concurrent Processing Benefits** Research and present a case where concurrent processing improved efficiency in a system.
2 12.01.26	**1.1 Types of processor** **CISC vs RISC Comparison Table** Create a table that lists the characteristics and uses of CISC and RISC processors. **GPU Applications Research** Investigate and summarize the applications of GPUs beyond	**2.2 Problem solving and programming** **Coding Simple Examples** Write small programs demonstrating sequence, iteration, and branching using a programming language of choice (e.g., Python).

Name of Course

	graphics, such as in machine learning or data analysis. **Multicore Systems Benefits** Write a report on the advantages of multicore processing in modern applications.	**Develop a Modular Program** Create a program with modular components and explain the function of each module.
3 19.01.26	**1.1 Input, output, and storage** **Poster of Input/Output Devices** Create a visual poster that displays various input and output devices and their functions. **Storage Devices Research** Research different types of storage devices (magnetic, flash, optical) and write a summary of their uses and characteristics. **RAM vs. ROM Comparison** Create a chart comparing RAM and ROM in terms of characteristics, uses, and performance.	**2.3 Algorithms** **Algorithm Design** Design an algorithm to solve a simple problem (e.g., finding the maximum number in a list) and describe its steps. **Efficiency Analysis** Analyse the efficiency of different algorithms and present findings using Big O notation.
4 26.01.26 MOCK 1st Week	**1.2 Systems Software** **Operating Systems Report** Write a report detailing the functions and purposes of various operating systems (e.g., Windows, Linux, macOS). **Flowchart for Memory Management** Create a flowchart illustrating paging and segmentation processes. **Research Scheduling Algorithms** Research different scheduling algorithms (e.g., round robin,	**2.2.1 Programming techniques** **Implement a Recursive Function** Write a program that uses recursion (e.g., factorial calculation) and explain how it works. **Scope Practice** Create examples demonstrating global and local variables in a programming context.

Name of Course

	shortest job first) and explain their use cases.	
5 02.02.26 MOCK 2nd Week	**Open Source vs. Closed Source Research** Research the advantages and disadvantages of open source versus closed source software and present findings. **Translators Explanation** Create a presentation explaining the roles of interpreters, compilers, and assemblers in software development.	**2.3.1 Algorithms** **Implement Bubble Sort** Write a program that implements the bubble sort algorithm and analyse its time complexity.
6 09.02.26	**1.2 Software Development** **Mind Map of Methodologies** Create a mind map that illustrates different software development methodologies and their key features. **Algorithm Writing Practice** Write algorithms for various problems (e.g., sorting a list) and explain your thought process.	**2.1.1 Thinking abstractly** **Reflective Piece on Abstraction** Write a reflective essay on the importance of abstraction in computational problem solving.
February Half Term	**1.3 Exchanging data** **Research Compression Methods** Provide a report comparing lossy and lossless compression techniques with examples. **Encryption Techniques Explanation** Write a summary explaining symmetric and asymmetric encryption methods and their uses.	**2.1.2 Thinking ahead** **Checklist for Preconditions** Create a checklist identifying preconditions for solving a specific problem.
7 23.02.26	**1.3 Databases** **ER Diagram Creation**	**2.1.3 Thinking procedurally** **Problem Breakdown**

Name of Course

	Design an Entity Relationship diagram for a sample database scenario and explain the relationships between entities. **SQL Query Practice** Write and execute basic SQL queries to demonstrate understanding of data manipulation.	Break down a complex problem into smaller components and outline the steps needed for a solution.
8 02.03.26	**1.3 Networks** **Research Network Types** Write a report detailing differences between LAN and WAN, including advantages and disadvantages. **Protocols Chart** Create a chart listing common network protocols and their purposes.	**2.1.4 Thinking logically** **Logical Conditions Examples** Write examples that illustrate how logical conditions affect decisions in programming.
9 09.03.26	**1.3 Web Technologies** **Create a Simple Web Page** Design a basic web page using HTML, CSS, and JavaScript, implementing different web technology concepts. **Search Engine Indexing Research** Research and summarize how search engines index web pages and the importance of SEO.	**2.1.5 Thinking concurrently** **Pros and Cons List** Create a pros and cons list discussing the benefits and trade offs of concurrent processing in computing.
10 16.03.26	**1.4 Data Types** **Data Types Table** Create a table listing primitive data types with examples and their applications. **Binary Conversion Practice**	**2.2.2 Computational methods** **Case Study Analysis** Analyse a case study that demonstrates problem recognition and decomposition in computational methods.

Name of Course

	Practice converting decimal and floating point numbers to binary and hexadecimal (decimal) and vice versa, including positive and negative numbers.	
11 23.03.26	**1.4 Data Structures** **Implement Data Structures** Write code to implement arrays, linked lists, stacks, and queues, explaining their functionalities.	**2.2.1 Programming techniques** **Object Oriented Techniques** Create a class with attributes and methods, demonstrating object oriented programming principles.
Easter Break	**1.4 Boolean Algebra** **Simplifying Boolean Expressions** Practice simplifying Boolean expressions using laws and create truth tables for given expressions. **Logic Gates and Truth Tables** Create truth tables for various logic gates and provide examples of their applications.	**2.3.1 Algorithms** **Tree Traversal Implementation** Write code for both depthfirst and breadthfirst tree traversal algorithms and compare their efficiencies
12 13.04.26	**1.5 Legal, moral, cultural, and ethical issues** **Research Key Legislation** Write summaries of key computing-related legislation (e.g., Data Protection Act) and discuss their implications. **Case Studies on Ethics** Discuss case studies that highlight moral and ethical issues in computing and technology.	**2.3.2 Algorithms** **Algorithm Suitability Analysis** Analyse a given scenario and discuss which algorithms would be suitable for solving the problem.
13 20.04.26	**1.5 Computing related legislation** **Key Laws Summary** Write a summary of key laws affecting computing and their implications for society.	**2.3.1 Algorithms** *Dijkstra and A Implementation* * Implement Dijkstra's shortest path and A* algorithms and analyse their performance in different scenarios.

Name of Course

	Ethical Issues Discussion Discuss the ethical implications of technologies such as AI and data mining.	
14 27.04.26	**Revision of Paper 1 Topics** **Group Study Sessions** Organise group study sessions where you can review and discuss past paper questions from Paper 1.	**Revision of Paper 2 Topics** **Peer Teaching Sessions** Conduct peer teaching sessions where you explain key concepts from Paper 2 to each other.
15 04.05.26	**Mock Exam Paper 1** **Timed Practice Exam** Conduct a mock exam in a timed setting to simulate real exam conditions, followed by a review session.	**Mock Exam Paper 2** **Timed Practice Exam** Conduct a mock exam for Paper 2, followed by a review session focusing on common mistakes.
16 11.05.26	**Review Mock Exam 1** **Error Analysis** Analyse the mock exam results and errors and clarify difficult concepts.	**Review Mock Exam 2** **Error Analysis** Analyse the mock exam results and errors and clarify difficult concepts
17 18.05.26	**Final Revision of Key Topics** **Revision of Key Topics** Schedule revision sessions on key topics analysed as weak	**Final Revision of Key Topics** **Revision of Key Topics** Schedule revision sessions on key topics analysed as weak
May Half Term	**Final Revision of Key Topics** **Revision of Key Topics** Schedule revision sessions on key topics analysed as weak	**Final Revision of Key Topics** **Revision of Key Topics** Schedule revision sessions on key topics analysed as weak