



GCE AS/A LEVEL COMPUTER SCIENCE

SUMMARY OF ASSESSMENT

Summer 2022 only

AS Unit 1: Fundamentals of Computer Science **Written examination: 2 hours** **100 marks**

This unit investigates computer architecture, communication, data representation, data structures, software applications, programs, algorithms, logic, programming methodologies and the impact of computer science on society.

Streamlining of content to be assessed so that the following distinct topic content areas (subheadings in the left-hand column of the specification) are not subject to assessment in 2022:

- 11. Systems Analysis
- 17. Economic, moral, legal, ethical and cultural issues relating to computer science
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AS Unit 2: Practical Programming to Solve Problems **On-screen examination: 2 hours** **60 marks**

This unit consists of a series of set tasks completed on-screen by candidates. These tasks will assess the practical application of knowledge and understanding and will require the use of Visual Basic.NET, Python or Java as a programming language.

A2 Unit 3: Programming and System Development

Written Examination: 2 hours

100 marks

This unit investigates programs, data structures, algorithms, logic, programming methodologies and the impact of computer science on society.

Streamlining of content to be assessed so that the following distinct topic content areas (subheadings in the left-hand column of the specification) are not subject to assessment in 2022:

- 6. System design
- 8. Program construction.

A2 Unit 4: Computer Architecture, Data, Communication and Applications

Written Examination: 2 hours

100 marks

This unit investigates computer architecture, communication, data representation, organisation and structure of data, programs, algorithms and software applications.

Streamlining of content to be assessed so that the following distinct topic content areas (subheadings in the left-hand column of the specification) are not subject to assessment in 2021, equivalent to the loss of 10-15 GLH overall (with Unit 3):

- 1. Hardware and communication - Input / output, networking
- 6. The operating system – Memory management and buffering, Scheduling
- 7. The need for different types of software systems and their attributes – Safety related systems, Control systems, Expert systems.

A2 Unit 5: Programmed Solution to a Problem

Non-exam Assessment

80 marks

Candidates discuss, investigate, design, implement, test and evaluate a computerised solution to a problem chosen by the candidate which must be solved using original code (programming).

This is a substantial piece of work, undertaken over an extended period of time.

We have removed the requirement for learners to complete:

- a prototype
- post-prototype refinement of design
- developmental testing.

This adapted version of GCE Computer Science is available for entry in **2022 only**. Candidates entering the qualification in 2023 should use the approved [specification](#).

GCE Computer Science Summary Page

AS

Unit 1: Fundamentals of Computer Science

Written examination 25% (62.5%) of qualification

Streamlining of content to be assessed so that the following distinct topic content areas (subheadings in the left-hand column of the specification) are not subject to assessment in 2022:

- 11. Systems Analysis
- 17. Economic, moral, legal, ethical and cultural issues relating to computer science

Unit 2: Practical Programming to Solve Problems

On-screen examination 15% (37.5%) of qualification

There are no changes to this unit.

A level

Unit 3: Programming and System Development

Written examination 20% of qualification

Streamlining of content to be assessed so that the following distinct topic content areas (subheadings in the left-hand column of the specification) are not subject to assessment in 2021, equivalent to the loss of 10-15 GLH overall (with Unit 4):

- 6. System design
- 8. Program construction.

Unit 4 Computer Architecture, Data, Communication and Applications

Written examination 20% of qualification

Streamlining of content to be assessed so that the following distinct topic content areas (subheadings in the left-hand column of the specification) are not subject to assessment in 2021, equivalent to the loss of 10-15 GLH overall (with Unit 3):

- 1. Hardware and communication - Input / output, networking
- 6. The operating system – Memory management and buffering, Scheduling
- 7. The need for different types of software systems and their attributes – Safety related systems, Control systems, Expert systems.

Unit 5 Programmed Solution to a Problem

Written examination 20% of qualification

We have removed the requirement for learners to complete:

- a prototype
- post-prototype refinement of design
- developmental testing.

Rationale

Streamlining content for assessment in 2022 will enable centres to adjust for the loss in teaching and learning time as a result of the Covid-19 pandemic. All examination papers will retain the same structure as previous series so will be familiar to learners who have seen past papers. This streamlining of content for assessment in 2022 still allows learners to be able to respond to the synoptic questions and allows equitable delivery time reductions across all written examinations. The additional adaptation made to Unit 5 in response to the consultation will further mitigate lost teaching and learning during the first year of the 2022 cohort's course.