

# A Level Computer Science – Timed Assessment Guidance

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### **1 – Time Assessment Overview**

### Assessment Details

- Each assessment will be done in lesson time.
- The assessments will last 1 hour 30 minutes.
- Each assessment is worth a total of 83 marks.
- One set of these assessments will be low stake.

### Assessment Dates

Set 1	Set 2	<u>Set 3</u>
Paper 1 – Thursday 22 <sup>nd</sup> April	Paper 1 – Thursday 6 <sup>th</sup> May	Paper 1 – Thursday 20 <sup>th</sup> May
Paper 2 – Thursday 29 <sup>th</sup> April	Paper 2 – Thursday 13 <sup>th</sup> May	Paper 2 – Thursday 27 <sup>th</sup> May

# 2 – Revision Guidance

### **Revision Materials**

All students have access to a course textbook.

All students have been issued with past paper packs previously.

All students have been provided a topic list for these assessments this topic list can be found on the next page.

# 3 – Topic List

# Year 13 Computer Science Timed Assessments Topic List

Combined Papers 1	Combined Papers 2	Combined Papers 3
Thursday 22 <sup>nd</sup> April P1 and P2 – C5	Thursday 6 <sup>th</sup> May P1 and P2 – C5	Thursday 20 <sup>th</sup> May P1 and P2 – C5
<ul> <li><u>Topics on this paper (Paper 1)</u></li> <li>Networks – Client Server vs P2P</li> <li>Databases</li> <li>Object Orientated Programming</li> <li>Data representation</li> <li>Karnaugh Maps</li> <li>Little Man Computing</li> <li>Operating Systems w/ utility Software</li> </ul>	<ul> <li><u>Topics on this paper (Paper 1)</u></li> <li>Algorithm interpretation</li> <li>Boolean Logic</li> <li>Databases</li> <li>Data representation</li> <li>Little Man Computing</li> <li>Operating Systems w/ utility Software</li> <li>BIOS / Scheduling</li> </ul>	<ul> <li>Topics on this paper (Paper 1)</li> <li>Karnaugh Maps w/ Boolean expressions</li> <li>Algorithm interpretation and design</li> <li>Encryption</li> <li>Object Orientated Programming</li> <li>Networks</li> <li>Databases – SQL</li> <li>HTML</li> <li>Memory management</li> <li>Search engine optimisation</li> </ul>
Thursday 29 <sup>th</sup> April P1 and P2 – C5	Thursday 13 <sup>th</sup> May P1 and P2 – C5	Thursday 27 <sup>th</sup> May P1 and P2 – C5
<ul> <li><u>Topics on this paper (Paper 2)</u></li> <li>Data structures – Trees, Graphs, Linked Lists</li> <li>Recursion and iterative functions</li> <li>Pseudocode skills</li> <li>Big O notation</li> <li>Sorting algorithms</li> <li>Object Orientated Programming</li> <li>Features of an IDE</li> </ul>	<ul> <li><u>Topics on this paper (Paper 2)</u></li> <li>Optimisation algorithms (A* Algorithm and Dijkstra's Algorithm)</li> <li>Sorting Algorithms</li> <li>Searching Algorithms</li> <li>Data Structures – Queues</li> <li>Data Mining</li> <li>Object Orientated Programming</li> <li>Pseudocode Skills</li> <li>Features of an IDE</li> </ul>	<ul> <li><u>Topics on this paper (Paper 2)</u></li> <li>Optimisation algorithms (A* Algorithm and Dijkstra's Algorithm)</li> <li>Data Structures – Hash Table</li> <li>Sorting Algorithms</li> <li>Searching Algorithms</li> <li>Visualisation</li> <li>Recursion</li> <li>Big O Notation</li> <li>Pseudocode Skills</li> <li>Object Orientated Programming</li> </ul>

### 4 - How to revise A Level Computer Science

Practice questions from past papers are one of the best methods of revising topics from the course. This approach, accompanied by creating notes and reading the revision guide as a source for information, has proven successful for many of our previous students.

### How to revise a particular topic

this is generic and by no means a one size fits all approach

- 1. On a single sheet of A4, write down everything you currently know about the topic. Do this prior to reading the revision guide or seeking help from previous notes.
- 2. Now consult the revision guide for the topic and add to this sheet, anything you did not know that is necessary once complete, highlight these points these are the areas you need to learn.
- 3. Locate questions based around this topic in the past paper pack and attempt to answer them.
- 4. Confirm with the mark scheme as to your success in answering the question.

The end goal of this approach would be that you are comfortably able to produce a piece of A4 for each topic of the course and then apply this information to the past paper questions.

### **Obtaining feedback for answers**

The students who succeed in computer science are those who seek constant feedback from teachers, not just in the scope of a lesson. <u>Any work you produce out of lesson such as past paper question answers or programming challenges, you should want to seek feedback for</u>. This can be achieved by:

- 1. Taking work to a teacher during school time.
- 2. Emailing a teacher your answers, questions etc.

Mr Ebrahim - b.ebrahim@bishopchalloner.bham.sch.uk
Mr Ravenscroft - l.ravenscroft@bishopchalloner.bham.sch.uk

### As your teachers we want to give you feedback!