**Graded Unit Exam**

**Week 1**

General Information (issue to candidates)

The assessment is based on a written examination lasting 3 hours.

**May 19th** Time /room to be finalised

The examination should be unseen prior to the event and the assessment should be conducted in controlled and invigilated conditions.

No reference material should be allowed into the examination room. The examination should take place under **closed-book** conditions. **Calculators** are not permitted. All examination question papers, scripts and rough working must be returned to the invigilator at the end of the examination.

The assessment event will normally be taken at one sitting.

At all times, the security, integrity and confidentiality of examinations must be ensured.

The question paper will consist of three sections, totalling 100 marks (100%).

 Section 1 will be worth 15% of the total marks

 Section 2 will be worth 15% of the total marks

 Section 3 will be worth 70% of the total marks

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Section** | **Type of question** | **No. of questions** | **Marks per question** | **Total marks** |
| 1 | Selected response | 15 | 1 | 15 |
| 2 | Constructed response | 1(mandatory) | 15 | 15 |
| 3 | Constructed response | 7 from 8 | 10 | 70 |

Topics covered are

H173 34 Developing Software: Introduction

H175 34 Computer Systems Fundamentals

H177 34 Troubleshooting Computing Problems

H1F7 34 Professionalism and Ethics in Computing

Assessors will then assign a grade to the candidate for this Graded Unit based on the following grade boundaries:

 A = 70% — 100%

 B = 60% — 69%

 C = 50% — 59%

**Revision Topics Week 1**

H175 34 Computer Systems Fundamentals

**Types of computer memory**, usage and characteristics

Volatile, Non-volatile, DRAM, SDRAM, EPROM, EEPROM

**Busses,** purpose, addressable memory calculation

<http://compsysfunds.hnd-computing.com/>

**Input/Output**

DMA, data transfer, explanation and priorities.  
<http://compsysfunds.hnd-computing.com/?page_id=435>

**Interrupts and polling**

**Operating Systems - Types and layers of**

**Number System Conversions, hex - decimal, decimal - hex, binary – decimal, decimal – binary**

**Back up types and archive attributes**

**Other presentations and resources here**

**S:\hccomp\H17534 CompSysFund**

**Revision Topics Week 2**

H173 34 Developing Software: Introduction

<http://softdev.hnd-computing.com/>

**Need for comments**

**Variables, types, naming conventions, scope**

**Iteration, constructs types of loops**

[**http://softdev.hnd-computing.com/?page\_id=53**](http://softdev.hnd-computing.com/?page_id=53)

**Attempt “Data Types Quiz” followed by Data Crossword**

[**http://softdev.hnd-computing.com/?page\_id=631**](http://softdev.hnd-computing.com/?page_id=631)

**Testing**

[**http://softdev.hnd-computing.com/?page\_id=59**](http://softdev.hnd-computing.com/?page_id=59)

**Followed by testing quiz**

[**http://softdev.hnd-computing.com/?page\_id=1102**](http://softdev.hnd-computing.com/?page_id=1102)

**Describe Normal, Extreme, Exceptional**

**Technical Documentation, Detailed design including**

Top level design consisting of main steps in the correct order.

Expansion of top level design where possible.

Description of functions.

**Revision Topics Week 3**

H177 34 Troubleshooting Computing Problems

Problem Solving steps

Importance of documenting solutions

Work through SQA materials

<http://troubleshooting.hnd-computing.com/>

Group discussion around topics on site

**Revision Topics Week 4**

H1F7 34 Professionalism and Ethics in Computing

**Code of conducts and ethical standards,** examples

**Code of ethics,** examples

**Disposal of and recycling of equipment,** responsibilities and legislation, including important dates

**Copyright, Designs and Patents Act**

**Computer Misuse Act**

**Further resources here**

**S:\hccomp\Professionalism and ethics**

**Week 5 - Practice paper**

**To be issued by David and returned**

**Week 6 – review of practice paper**

**Any other issues, good luck**