The questions on this worksheet have been taken from the OCR A-Level Computer Science Practice Paper 1.1

"3-a-day" A-Level Exam Practice Unit 1 (026)

Question 1

A software development company is building an operating system for a mobile phone that is in the process of being designed.

Explain how the developers could use virtual machines.

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.....**[2]**

Question 2

One of the developers is responsible for writing the code for what happens when the CPU receives an interrupt. Outline what the code must do.

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.....**[6]**

Question3

The developers follow the waterfall lifecycle.

(i) List **three** stages of the waterfall lifecycle.

1.....

2.....

3.....**[3]**

The questions on this worksheet have been taken from the OCR A-Level Computer Science Practice Paper 1.1

Answer 1

- Developers can run their operating system on a software implementation of the phone… - …Until the physical machine is ready. (1 per -)	**AO1.2** **2**

Answer 2

- Complete the current FDE Cycle - Check the priority of the incoming interrupt. - If its of a higher priority than the current task. - Contents of registers stored in memory.. - …in a stack. - The relevant interrupt service routine is loaded… - ..by loading the relevant value into the program counter. - When the ISR is complete the previous state is popped from the stack - And are loaded back into the registers. (1 per -, max 6)	**AO1.1** **6**

Answer 3

- Feasibility Study - Investigation/Requirements Elicitation - Analysis - Design - Implementation/Coding - Testing - Installation - Documentation - Evaluation - Maintenance (1 per -, max 3)	**AO1.1** **3**