Complete the missing parts of the table below by naming the logic gates shown below (4 marks)



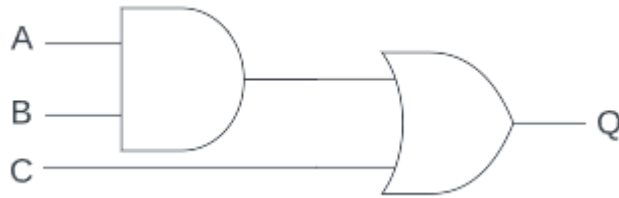| Gate | Name of gate |
|------|--------------|
| A | |
| B | |
| C | |
| D | |

(NOTE: Order changed for reading ease Q2 and Q3 swapped)

From the following list place each item in either the systems software or applications software group.

List: Windows, Disk defragmenter, Presentation Software, Auto-updater, Web browser, Game (2 marks)

| System software | Application software |
|-----------------|----------------------|
| | |

The Boolean expression for the logic circuit above is: _____ (1 mark)

Show the truth table for the logic circuit above

Name and describe 3 of the 5 main roles of the operating system. (6 marks)

_____

_____

_____

_____

_____

_____

_____

Explain the differences between low level and high level languages and give an example of each. (5 marks)

_____

_____

_____

_____

_____

Explain the similarities and differences between the three types of translators. (3 marks)

_____

_____

_____

**3.6Ghz**
Single core
8MB cache

**2.4Ghz**
Dual core
8MB cache

**1.2Ghz**
Quad core
4MB cache

Jim likes to play games on his computer. Sometimes he will be researching online while listening to music and having open a couple of documents he is working on. He wants the most powerful computer he can get. He has got it down to a choice of 3 computers. The specifications for their CPUs are above.
Explain how the three factors shown affect CPU performance and explain which to choose and why. (5 marks)

_____

_____

_____

_____

_____

_____

_____

What is meant by the Von Neumann architecture? (1 mark)

_____

_____

Explain the role of buses in the CPU. (2 marks)

_____

_____

# MrGoff.com Comp Sys Test (Offline)

Explain the difference between the two types of main memory. (3 marks)

_____

_____

_____

_____

Explain what secondary storage is and why it is needed. (2 marks)

_____

_____

_____

Explain how optical storage works. Include both how data is stored and read. (5 marks)

_____

_____

_____

_____

_____

_____

_____

Explain the advantages and disadvantages of cloud storage compared to local storage. (4 marks)

_____

_____

_____

_____

Explain what an embedded system and give an example. (2 marks)

_____

_____

_____

_____