**Revision Questions (Week 1)**

*This revision exercise is intended to be completed by the use of hand written answers and without the use of any calculators.*

Go to <http://compsysfunds.hnd-computing.com/?page_id=112>

Work through the pages on memory

Answer the questions below

**DRAM** holds its charge for how long

What is the process of recharging called

What are **ROMs** often used for storage of What are **EPROM** and **EEPROM**

Which is volatile **RAM**  or **ROM**

What does Volatile mean?

Refer to this page <http://www.webopedia.com/TERM/B/bus.html>

Answer the questions below

What are the two parts that all buses consist of?

The data bus transfers ?

The address bus transfers?

The size of a bus, known as its *width,* is important because

Go to <http://compsysfunds.hnd-computing.com/?page_id=345> and

Answer these questions

**Q.** Which type of operating system is normally found on a PC or stand-alone system

**Q.** Single Processor, Multiple Processor, Multi-Tasking system are types of what kind of operating system?

Go here <http://techterms.com/definition/dma>

**Q.** What does DMA stand for ?

Why is it called this?

Using the following link <http://www.sqa.org.uk/e-learning/CompArch02CD/page_32.htm> find the answer to this question

**Q. Why does Direct Memory Access have priority over the CPU when both request a memory transfer?**

**D**escribe both Polling and Interrupts, you can find this here (http://compsysfunds.hnd-computing.com/?page\_id=504) or quote another resource if you find one

Polling:

Interrupt:

There are 7 steps outlined on the SQA page for the sequence of events when an interrupt is raised, note these below

**Q. Name the layers of an operating system**

Identify which file attribute belongs to which statement

|  |  |  |
| --- | --- | --- |
| This attribute will prevent software programs from saving changes to a file. This is useful if you want to write protect a file. |  | **Hidden (H)** : |
| This attribute is tagged to folders or sub-folders to differentiate them from files. | **System (S)** |
| A file or directory used exclusively by the operating system which should not be altered or deleted. | **Archive (A)** |
| This bit is used by software applications that modify files as well as backup software as a “communication link”. Some backup software allows incremental backups by the user, which only backs up files that have changed since the previous backup. | **Read-Only (R)** |
| A file marked with this attribute will be hidden from view under normal viewing conditions. | **Directory (D)** |

Go to the following folder on the shared student network **S:\hccomp\david\Exam Revision**

and open the presentation called **backuparchivebit.pptx**.

**Name three types of backup**  
1. 2. 3.

**Q.** In relation to the archive bit what happens to it when each of these backups take place  
 1. reset/not reset 2. reset/not reset 3. reset~~/~~not reset

**Number system exercise**

Add the following binary values

1 1 0 0 1 1 0 1 0 0 1 0 0 0 0 1 1 1 0 1 0 1 1

1 0 0 0 1 0 0 1 0 0 1 1 1 1 1 1 1 0 0 1 1 1 0

Add the following HEX values

2 D B 2 F A F A B

1 2 1 8 2 B 2 C 1

**Problem**

A manufacturer wishes to add a new feature to his process control PROM. At the moment the capacity of the chip is 8Kb (8 x 1024 bytes = 8192 bytes)

4 program units are already resident on the chip

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Program 1 | Program 2 | Program 3 | Program 4 | Free Space |
| 4AB16bytes | 21F16 bytes | FC316 bytes | FF16 bytes |  |

How much free space is available on the PROM in HEX \_\_\_\_\_\_

In Decimal \_\_\_\_\_\_