OCR GCSE Computing – 2.1.3 (SOFTWARE) – REVISION SHEET

Software

Any program that runs on a computer

SYSTEM SOFTWARE

Programs used to OPERATE and MAINTAIN the computer such as the OPERATING SYSTEM

APPICATIONS SOFTWARE

Programs that PERFORM a TASK for the USER e.g. Wordprocessor

APPLICATION SOFTWARE

Group of software that PERFORMS a SPECIFIC task for the USER

OPEN SOURCE	PROPRIETARY
Licensed but NO CHARGE – Anyone can use	Software sold with LICENSE – Costs money Restrictions – Users or machines
Programme code is available	Programme code not available
Any new software created must be OPEN SOURCE as well	New software can be sold on and money made
ADV – No cost DIS – Lack of support / Stability / Backup	ADV – Support / OnLine training / Updates DIS – Expensive / Hacking targets

CUSTOM WRITTEN	OFF THE SHELF
Written for a customer for their SPECIFIC requirements	Go into a shop / online and BUY IT
Pay development costs	Don't pay development costs
Takes time before it can be used	Available immediately
Adv – No Features that you will not use / Easy to use / Specific to task Dis – NOT available straight away / More expensive than off the shelf / Not much support / Updates only when you spot errorss	Adv – Available straight away / Cheaper than custom written / Plenty of support Regular Updates Dis – Features that you will not use / Complicated / Not specific to task

TIP – Look for patterns when learning the advantages and disadvantages – THINK of the following aspects:

COST

SPECIFIC to task

AVAILABILITY

SUPPORT / TRAINING

SYSTEM SOFTWARE - OPERATING SYSTEMS (OS) – (LEARN 5 features)

Group of programmes that manages system resources.

1) MEMORY MANAGEMENT – When programme is running it is stored in computers memory. OS must manage where it goes. (LINK to hardware section – See Fetch Execute Cycle – When instruction is needed the OS will load it from main memory)
2) MULTI-TASKING / PROCESS MANAGEMENT – Single Core processor can only execute ONE instruction at a time. Some programmes are more URGENT than others so have a higher priority.

(Process – What we call a programme when it is RUNNING in main memory of computer)

3) PERIPHERAL MANAGEMENT – OS must manage all the INPUT DEVICES, STORAGE DEVICES and OUTPUT DEVICES. When a key is pressed the OS ensures that the KEY PRESS recognized on the keyboard and sent to the CPU

(Peripeheral – Any piece of computer hardware that is not part of CPU)

4) SECURITY – Restrict access to machine and/or files.. Allow setting of parental controls for access
5) USER INTERFACE – The way that we interact with the computer.. Interfaces can use Windows, Icons, Menus, Pointers (WIMP) or touch systems such as on phones

UTILITY PROGRAMMES – (Learn some examples)

Not essential but provide HOUSEKEEPING tools

ANTI VIRUS

Programs used to OPERATE and MAINTAIN the computer such as the OPERATING SYSTEM

FIREWALL

Blocks access from the internet to a PC / Network, Restricts web access

Disk Defragmenter

One programme will be stored on a disk in different places. Disk Defragmenter rearranges files so they are next to each other making reading files more quicker.

Others – SYSTEM INFORMATION / SYSTEM CLEANUP / AUTOMATIC UPDATING

KEY TERMS