Systems Software

“Collection of systems software that manages the computer. Usually supplied with the computer. Most common operating systems are Windows, Linux, Unix, MacOS, iOS.”

User Interface

“The means by which the user and a computer system interact, in particular the use of input devices and software.”

Memory Management

“The process of the operating system deciding what should be in memory at any given time. Responsible for loading data and programs into and out of memory when required.”

Multitasking

“Running more than one application at a time by giving each one a slice of processor time.”

Peripheral Management

“The process of your operating system dealing with requests / input / output to and from any connected peripheral devices such as a mouse, keyboard, webcam, speaker, scanner, printer etc.”

Device Drivers

“Translates commands from the operating system into hardware specific commands that a device understands. e.g. A printer driver tells the printer how to print a document from the operating system.”

User Management

“Operating system provides for: Allowing different people to log into the same computer with a username and password. Remembering personal settings. Managing access rights to files.”

File Management

“Operating system provides: Access permissions for files (read and write). Opening files in associated programs. Moving, deleting and renaming files. Presenting a folder structure to the user.”

Utility System Software

“A systems program that performs some specific task in the operation of the computer, for example file backup, virus checking or a compression program.”

Encryption Software

“Turns plaintext data into unreadable ciphertext data using a key. Protects data from being read by hackers.”

Defragmentation Software

“Different sized files saved on disk are deleted over time creating gaps on the disk. New files fill up the gaps, but may need more space than the gap provides resulting in fragments of the file being spread across the disk. Defragmentation rearranges parts of files back to contiguous space. Makes access quicker.”

Data Compression

“Reduces the size of a file. Takes up less disk space. Quicker to download over the internet. Compressed files must be extracted before they can be read.”

Full Backup

“Every file is copied to an alternative storage device. E.g. portable hard drive. Files can be recovered if it is deleted or corrupted. Can be slow to copy large numbers of files.”

Incremental Backup

“Only the files that have changed since the last backup are copied. Files can be recovered if it is deleted or corrupted. Much quicker than a full backup.”