

4.1 Types of software and interrupts

Name: _____ Class: _____ Date: _____

Total: 8 marks

Objective

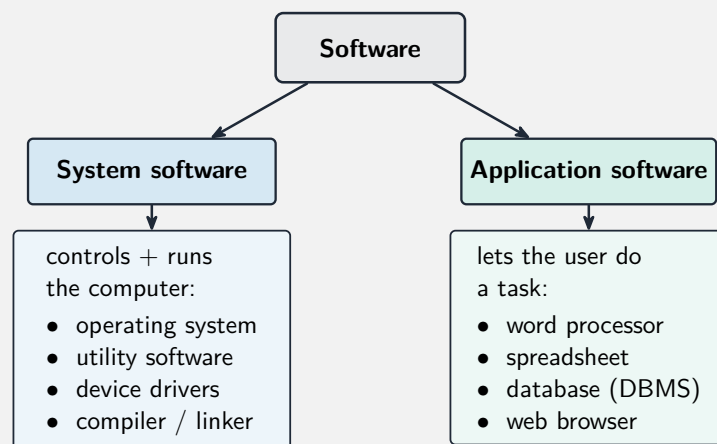
Build the skills to answer exam questions on **software and interrupts** 软件与中断—**system vs application software** 系统/应用软件, the **operating system** 操作系统, and **interrupts** 中断.

You must be able to:

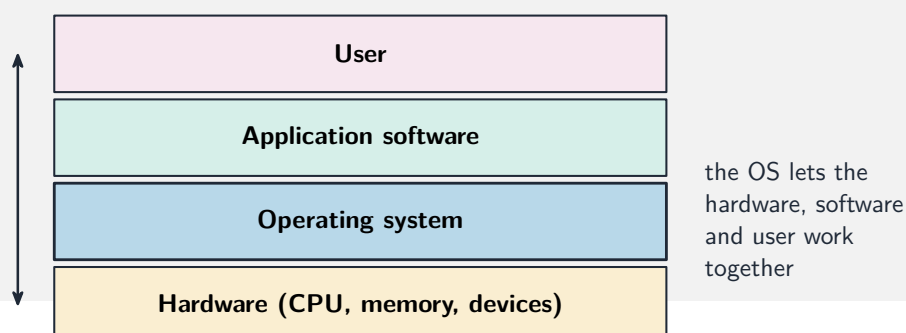
- classify software as system or application
- give the roles of the operating system
- describe an interrupt and how the processor handles it

1 Worked examples

■ Software and the OS



System software runs the computer; application software lets the user do a task



- an **interrupt** tells the processor something needs attention now.

2 Practice

2.1 State whether a web browser is system or application software. [1]

2.2 State two roles of the operating system. [2]

3 Exam-style questions

3.1 Which is system software? [1]

- **A** spreadsheet
 - **B** device driver
 - **C** word processor
 - **D** web browser
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3.2 A printer runs out of paper while printing.

(a) State the type of interrupt this is. [1]

(b) Describe what the processor does when an interrupt arrives. [3]

4 Go further

You are now ready for the real exam questions on this subtopic. Open the **4.1 Types of software and interrupts** past-paper sheet in the Library, or try these in **Practice mode**:

- 0478/12 N25 —Q5 (software / OS)
- 0478/13 J25 —Q4 (interrupts)

Solutions

2.1 application software.

2.2 any two of: managing files; managing memory; handling interrupts; providing a user interface; managing peripherals; multitasking; security.

3.1 B. A device driver is system software.

3.2 (a) a hardware interrupt.

(b) the processor stops what it is doing and saves its place; it runs the interrupt service routine to deal with it; then restores its place and carries on.