

PREPARING FOR EXAMS

by Dr June Hassall

How can you improve the results you will get on your examinations? Here are some useful hints.

Work hard during the term

- *Make good notes.* Underline headings and important words so you can see them easily. See also the section on **Taking Notes** for more help with this.
- *Learn as you go.* When you finish a piece of work, check that you understand it.
- *Take class tests seriously.* Try to do well on all your tests.
- *Complete assignments on time.* Projects and practicals done during term-time may form part of your overall exam mark, so do them well.

Revise effectively

- *Know your course.* Make a list of the topics that you have to learn.
- *Make a revision timetable.* Write down when you will revise each topic. Leave the week before your exam free for last-minute revision.
- *Make revision blocks short.* Short blocks of 30 minutes, with a 5-minute break, are better than long ones.
- *Make your revision active.* For example:
 - use a highlighter pen to mark important words in your notes;
 - write out summaries of your notes;
 - write the important words from your notes and then try to fill in the details;
 - draw and label diagrams, then check them;
 - try to repeat your notes from memory. Cover over a small part, then try and write or say it;
 - ask someone to test you by asking questions on the topic that you have done.
- *Learn from your mistakes.* Check the answers to questions, and if you made mistakes try to think where you went wrong, and learn from it.
- *Keep a record.* Record what you have revised, and tick off the topics as you do them.

Answering multiple-choice questions

- *Know the format.* Multiple-choice questions usually have an incomplete statement (stem)

followed by four possible answers from which you have to choose the best one.

- *Using an answer sheet.* For each question there will be four blank areas labelled A, B, C, and D. You have to blacken the letter that is the same as the answer that you think is correct. Use a pencil for this, in case you want to change it.
- *Don't just guess.* If you are not sure of the right answer, *don't* just guess. First cross off the options that you know are wrong. Then choose between those that are left.
- *Do answer every question.* Each question is worth one mark, and should only take a minute.
- *Making corrections.* If you want to change an answer, rub out the first one very carefully before marking the new one. You will be marked wrong if dark smudges show in two letters.

Answering structured questions

- *Know the format.* A structured question is divided into several numbered parts.
- *Writing your answers.* The question has lines on which you write your answers. The number of marks for each part of the question is usually listed. As a guide, make one point or write one sentence for each mark available.
- *Getting help.* If you are not sure of an answer, first read carefully all parts of the question. Check that you are clear where to write each part of the answer, and don't repeat yourself.
- *Use the space.* If you don't have enough to write in the space, check that you have understood the question. Also don't try and write more than can easily fit each space.
- *Answer all parts.* You must answer each part of the question in the correct place. If not, you won't get the marks.
- *Leave extra time for difficult questions,* such as those involving graphs. Check through your answers at the end.

Answering essay questions

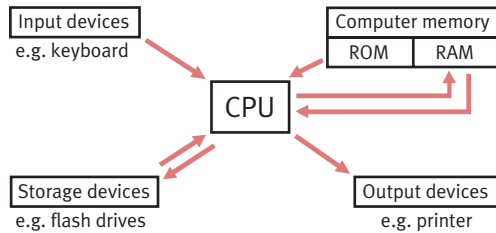
- *Know the format.* An essay question is usually divided into only a few parts. Each part has more marks than for a structured question.
- *Choosing questions.* You usually have a choice of questions. Spend time on this so that you make wise choices. Select questions on which you can answer most of the parts.

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

by Dr June Hassall and Elizabeth Potter

Computer hardware

Computer hardware is the equipment. There are five main parts to the computer.



- **Input devices:** These change information into digital signals that can be used by the CPU. Examples of input devices are: keyboard, mouse, keypad, touch screen, microphone, scanner, digital camera, and webcam.

- **CPU:** Central processing unit. This controls what the computer does. It interprets the program instructions and performs the computer's activities.

- **Computer memory:** ROM and RAM
 - ROM: read-only memory. This is the permanent memory that can be used but not changed. It contains programs needed for start-up, for example for loading the operating system.

- RAM: random access memory. This is the memory where you can save and change information. RAM is used by programs that are part of the operating system, or that are put in by the user of the computer.

- **Output devices:** These change digital signals from the CPU into a useful form for humans. Some examples of output devices are: the VDU (Visual Display Unit – the screen or monitor), printers, and loudspeakers.

- **Storage devices:** These write information onto storage media and read it back. Some examples of storage media are:

- hard disk: This is built into the computer itself. It can contain many gigabytes of information.

- USB flash drive: These can be put in and out of the computer and transported. They can hold several gigabytes of data.

- CDs and DVDs: These are read by laser beams in the CD drive. There are three kinds:

1. CD-ROMs (Compact disc read-only memory) are used for example to distribute software programs. They cannot be changed ('written to') by the user.

2. CD-R (CD-Recordable) and CD-RW (CD-Rewritable) can have data added by the user. CD-RWs allow the old files to be deleted

as new files are added, so the CDs can be used as many times as required.

3. DVDs (Digital versatile discs) have a capacity of around 20 gigabytes and can store movies that can be viewed on a computer or TV screen.

Computer software

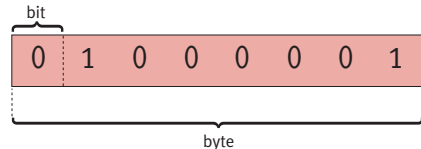
These are the programs for instructing the computer. There are two main types.

- **Operating systems**, such as Windows Vista, Linux, and Mac OS X. These control the hardware.

- **Applications**, such as word-processing and spreadsheet programs, and web browsers. Applications work through the operating system to gain access to the hardware, so that their programs can run.

Computer language: bits and bytes

- **Bit:** This is short for **binary digit**. The binary system is a way of counting that uses only two digits, 0 and 1, to make a digital code. Electronic circuits transfer information written in digital code, by being either switched ON (which counts as 1) or OFF (which counts as 0). Strings of 0's and 1's are used to make codes for all the letters, numbers, and punctuation that we use.



- **Byte:** This is a string of 8 bits. Each position in the code has a value based on powers of 2, so that each position to the left is twice the value of that on the right.

	2^7	2^6	2^5	2^4	2^3	2^2	2^1	2^0
	128	64	32	16	8	4	2	1
A	0	1	0	0	0	0	0	1
a	0	1	1	0	0	0	0	1

Using this system, the numerical value of 'A' is $64+1=65$, and of 'a' is $64+32+1=97$. All the letters and symbols etc have a value between 1 and 255.

- **Bigger bytes:** One byte is only enough to make codes for one letter, number, or symbol. For coding larger amounts of data we also have:

- one kilobyte (kb) or 1K (1,024 bytes);
- one megabyte (Mb) (1,024 kilobytes);
- one gigabyte (Gb) (1,024 megabytes).