**2.1 COLLECTING – PAGE 46: QUESTIONS 1 TO 3, 11 TO 15, 19**

1. <u>What is a pointing device?</u>

A pointing device is an input devices that controls an on-screen symbol called a pointer or cursor.

2. <u>Explain the difference between a mouse and a trackball.</u>

A mouse is a small hand-held input device that is moved over a flat surface to control the movement of a pointer. A trackball is a pointing device that is similar to a mouse except that the ball is on top of the device instead of the bottom.

3. <u>How does a touch screen work?</u>

A touch screen enters data by detecting the touch of your finger.

4. <u>What is the difference between a hand-held scanner and a flatbed scanner?</u>

Hand-held scanners are used for entering text and images that is less than a page wide. Flatbed scanners look similar to a small photocopier with the document remaining flat and stationary during the scanning.

11. <u>Why did Christopher Sholes move the most commonly typed letters to positions away from the typist's index finger?</u>

Sholes moved the most commonly typed letters (A, O, E, T, N and S) away from the typist's index fingers.

12. <u>How do OCR devices read text?</u>

Optical character recognition (OCR) devices are scanners that read typed text (and in some cases, handwritten text). First, a scanner produces a digital image of the text. Then the character recognition software matches this image to the shapes of individual characters.

13. <u>Where are barcode readers used extensively?</u>

Barcode readers are used extensively in retail industries to input product identification at point of sale.

14. <u>What is an operating system?</u>

The operating system is the software that supervises and controls the hardware.

15. <u>Describe some characteristics of the UNIX operating system.</u>

UNIX timeshares the host central processing unit (CPU) to be able to run multiple tasks and support multiple users.

**2.2 ORGANISING – PAGE 51: QUESTIONS 1 TO 7**

1. <u>What is digitising?</u>

Digitising is the process of translating data into the binary digits (bits) that can be stored and processed by a computer.

2. <u>How is text converted into binary data?</u>

All characters such as letters, numerals, punctuation keys, spaces and special symbols are converted into binary using a standard method of conversion such as ASCII or EBCDIC.

3. <u>What is the sampling rate?</u>

Sound is digitised using a method called sampling. This involves taking a number of samples or 'slices' of the sound wave. This is called the sampling rate.

4. <u>List six main categories of application software used to solve most problems.</u>
- Paint and draw software is used to create graphics.
- Multimedia is the presentation of information using text, graphics, animation, audio and video.
- Word processing is the most widely used application software.
- Desktop publishing is the use of specialised software to combine text and graphics to create a document.
- A spreadsheet uses a rectangular grid made up of rows and columns to organise and store data that requires some type of calculation.
- A database is an organised collection of data.

5. <u>How is data organised in a spreadsheet?</u>

The organisation of data involves entering data into a cell as a label, value or formula.

6. <u>How is data organised in a database?</u>

Data is organised into data structures called files, records, fields and characters.

7. <u>Describe a hard copy system used to organise data.</u>

Hard copy systems involve organising data on paper.

**2.3 ANALYSING – PAGE 54: QUESTIONS 1 TO 6**

1. <u>Describe two hardware requirements for analysis.</u>

Large amounts of storage are needed to receive and retain data over a period of time. Fast processing is needed to complete the many calculations often required for analysis.

2. <u>What type of processing is needed for complex analysis?</u>

Applications requiring complex analysis use parallel processing. This is the simultaneous processing of instructions using multiple processors or CPUs.

3. <u>What are modelling and simulations?</u>

Modelling and simulations are used to make predictions and examine decisions concerning real situations. A model is a representation of some aspect of the real world and a simulation is the use of that model.

4. <u>What types of computers are used for advanced simulations?</u>

Advanced simulations are performed on large computers such as mainframes.

5. <u>Describe the process of using 'what-if' questions to analyse spreadsheet data.</u>

'What-if' predictions are a powerful feature of spreadsheet software. The software allows the user to make changes to one item of data and observing the effects on other items.

6. <u>List two non-computer tools used for analysis.</u>

Searching manual filing systems to retrieve documents depends on how accurately the data has been organised and sorted. Simulations often involve using complex mathematical processes. A set of rules, relationships and procedures are specified.

7. <u>How can your privacy be eroded if databases are linked for analysis?</u>

Privacy is eroded by linking databases for analysis. Most people in pursuit of society's benefits readily give information about themselves to selected organisations.