



IGCSE ICT

PAPER 1: THEORY

TOPIC: TYPES AND COMPONENTS OF COMPUTER SYSTEMS

NOTE: TOTAL MARKS FOR THIS PAPER is 37 MARKS

The number of marks is given in brackets [] at the end of each question

1. Circle two items which are internal hardware components.

Actuator	Keyboard	Linker	Monitor
Mouse	Printer	Processor	Sound card

[2]

Answer

-
-

2. Circle two items that could be used to output data directly from a smartphone.

Blu-ray disc	microphone	mouse	screen
SD card	sensor	speaker	webcam

[2]

Answer

-
-

3. Circle two types of system software.

Actuator	Linker	Operating system
Photo-editing software	Sensor	Spreadsheet

[2]

Answer

-
-

4. One component of the internal memory of a computer is Random Access Memory (RAM).
State one characteristics of RAM.

Answer

.....[1]

5. A smartphone has many uses, for example making and receiving telephone calls.
Give three other uses of a smartphone.

Answer

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.....
.....
.....[3]

6. Give two advantages of using a smartwatch rather than a smartphone.

Answer

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.....[2]

7. A tablet computer consists of both hardware and software.

(a) Define the term hardware.

Answer

.....

.....[1]

8. Define the term software.

Answer

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.....[1]

9 There are two types of software: system and applications.

Give two examples of applications software.

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.....[2]

10. Give two examples of input devices which are part of a laptop computer.

Answer

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.....[2]

11. A virtual reality (VR) system is being used to train workers in a nuclear power station.

(a) Name two input devices that could be used with VR systems in this environment.

Answer

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.....[2]

12. Tick the most appropriate type of computer that matches each description.

	Desktop (✓)	Laptop (✓)	Smartphone (✓)
A portable computer that would most easily fit into your pocket			
A computer that is not powered by batteries			
A computer that has the smallest screen			
A portable computer with a keyboard and with a built-in 15 inch monitor			

[4]

13.

Tick whether the following statements relate to a command line interface (CLI) or a graphical user interface (GUI).

	CLI (✓)	GUI (✓)
This interface does not need a pointing device		
This is an example of a WIMP interface		
The user has to type in instructions		
This interface takes up more memory in the computer		

[2]

14. Identify two types of backing storage.

Answer

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.....

.....[2]

15. People are buying laptop computers rather than desktop computers.
Give two advantages of using a laptop computer rather than a desktop computer.

Answer

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.....[2]

16. Name two output devices that could be used with VR systems in this environment.

Answer

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.....[2]

17. Describe the benefits and drawbacks of using a dialogue-based user interface in this way.

Answer

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.....[2]

18. Identify the most appropriate hardware from the descriptions given:

(a) non-volatile internal memory used to store the start-up instructions

Answer

.....[1]

(b) an internal component that provides the input and output of audio signals

Answer

.....[1]

(c) an internal component that is composed of the main memory, the control unit and the arithmetic logic unit.

Answer

.....[1]

19. Describe the drawbacks of using gesture-based user interfaces in this way.

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.....[2]

Identify the most appropriate hardware from the descriptions given.

(a) An internal hardware component that connects a computer to a Local Area Network. [1]

Answer

.....

(b) An external device that retains a computer's data even after the computer is turned off. [1]

Answer

.....

(c) An input device that is attached to a monitor. [1]

Answer

.....

A group of students are producing a class newsletter which they will email to parents of students in the class. They are deciding whether to use a laptop computer or a smartphone to type the newsletter.

Discuss the advantages and disadvantages of using a laptop computer rather than a smartphone for this purpose. [6]

Answer

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Identify two devices that are part of the smartphone that could be used to input the data for the newsletter.[2]

Answer

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Identify two devices that are part of the smartphone that could be used to output data from the newsletter.[2]

Answer

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Tick (✓) whether the following are features of operating systems containing a command line interface (CLI) or a graphical user interface (GUI). [2]

	CLI (✓)	GUI (✓)
Instructions have to be typed.		
Applications are represented by icons.		
Options are chosen from a menu.		
Many instructions have to be memorised.		

Nine statements about random access memory (RAM) and read-only memory (ROM) are given below. By putting a tick (✓) in the appropriate box, indicate whether each statement refers to RAM or ROM. [9]

	RAM (✓)	ROM (✓)
Data on a chip is stored permanently and cannot be deleted		
It is not possible to alter or delete the data stored on the chip		
Data on the chip is stored temporarily and can be deleted by the user		
Data is retained even when the computer is powered down		
Stores data, files or part of the operating system which is currently in use		
Data is lost when power to the computer is turned off		
It contains the basic input/output system used to boot up the computer when it is first powered up		
It is a form of volatile memory		
It is a form of non-volatile memory		

Six descriptions are shown on the left and six computer terms are shown on the right. Draw lines to link each statement to its correct computer term. [6]

Method whereby a person uses their voice to carry out a function

output device

Physical component that allows data to be entered into a computer system

analogue

Physical component, such as a monitor, printer or projector under the control of the computer

computer-aided design

Small application that carries out a single task; usually embedded in the html page on a website

dialogue-based interface

Software used to help in the creation, manipulation, modification and analysis of a drawing

input device

Physical data that changes smoothly and is not step wise; has an infinite number of possible values

applet