

CANDIDATE
NAME

CENTRE
NUMBER

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CANDIDATE
NUMBER

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0417/12

February/March 2023

1 hour 30 minutes

You must answer on the question paper.

No additional materials are needed.

- Answer **all** questions.
- Use a black or dark blue pen.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- You may use an HB pencil for any diagrams, graphs or rough working.

- The total mark for this paper is 80.
- The number of marks for each question or part question is shown in brackets [].
- No marks will be awarded for using brand names of software packages or hardware.

This document has **12** pages.

- 1 (a) Explain what is meant by the term software.

.....
.....

[1]

- (b) State the **two** types of software used by computers.

1
2

[2]

- 2 Tick (✓) the device which produces hard copy.

A Buzzer	<input type="checkbox"/>
B Laser printer	<input type="checkbox"/>
C Touch screen	<input type="checkbox"/>
D Webcam	<input type="checkbox"/>

[1]

- 3 State **three** items that should be included in the technical documentation of a computer system.

1
2
3

[3]

4 Young people use the internet for research and communication.

(a) Search engines can be used to research information on the internet.

Describe **three** benefits of using a search engine to find information.

- 1
- 2
- 3

[3]

(b) Social media can be used to communicate with friends.

Give **four** precautions that young people should take when using social media.

- 1
- 2
- 3
- 4

[4]

- Describe how an expert system can be used to produce the best route for the delivery of items.

[illegible]

[6]

- State **two** devices found in the home which could be connected via Bluetooth.

1

2

[2]

7 Describe the characteristics of a primary key and a foreign key.

(a) Primary key

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..... [2]

(b) Foreign key

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..... [2]

8 Many devices in the home can connect to the internet. These are called smart devices.

Describe **four** benefits of using these smart devices.

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..... [4]

9 A web page can contain three web development layers. One of these is the content layer.

(a) State **one** use of the content layer.

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.....

[1]

(b) Identify the other **two** web development layers and give a use for each.

1

Use

.....

2

Use

.....

[4]

10 Some computers have touch screens.

Describe **three** benefits of using a touch screen.

1

.....

2

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3

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[3]

11 A student has downloaded a file which contains a virus.

(a) Describe the possible effects on his computer system if he opens the file.

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[2]

(b) Explain how the student could prevent the computer from being infected by viruses.

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[3]

(c) Some files containing viruses have to be quarantined as they cannot be deleted.

(i) State the type of files that may have to be quarantined rather than deleted.

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[1]

(ii) Explain how the software detects and quarantines the file.

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[3]

12 A tennis coach is creating a presentation to explain to teenagers the basics of playing tennis.

- (a)** Describe the design features that must be included to make the presentation appeal to the teenagers.

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[4]

- (b)** The designer needs to be aware of copyright legislation when creating the presentation.

Explain the need for copyright legislation.

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[2]

13 People can watch a movie either by streaming or from a Blu-ray disc.

Give **two** advantages of watching the movie by streaming rather than from a Blu-ray disc.

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[2]

- 14** Compare RAM and ROM. Your answer must include similarities and differences.

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[4]

- 15** Tawara Stores is a small company that does not make much profit. The managing director is deciding whether to implement a new IT system using direct changeover or parallel running.

Describe the advantages and disadvantages of using direct changeover compared with parallel running in this scenario.

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[6]

- 16** A school car park is controlled by a barrier. When teachers enter the car park their number plate is read and the barrier is raised automatically.

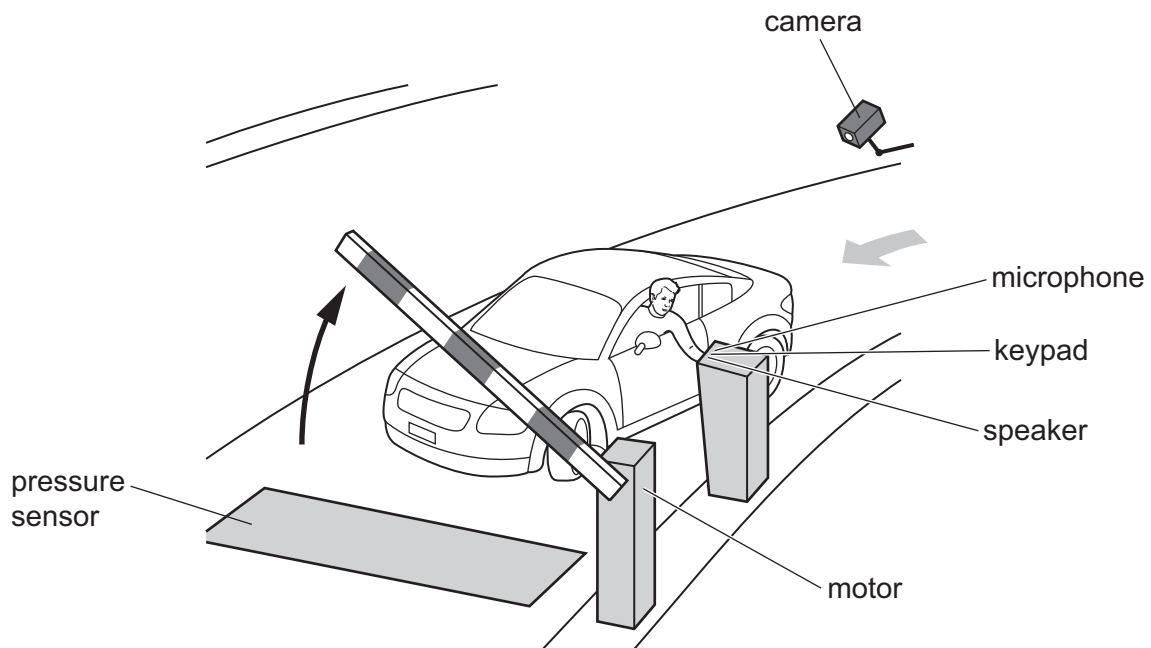


Fig. 16.1

- (a)** Visitors can use the keypad as an input device to enter a code which allows the barrier to be raised.

Identify **three** other input devices shown in Fig. 16.1.

- 1
- 2
- 3

[3]

- (b) Automated Number Plate Recognition (ANPR) is used to read and check the number plate of the vehicle.

Discuss the benefits and drawbacks of using an ANPR system.

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[6]

Please turn over for Question 17.

17 Verification and validation are used to check data.

(a) Identify and describe **two** methods of verification.

Method 1

Description

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.....

Method 2

Description

.....

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[4]

(b) Explain the following validation checks.

(i) Presence check

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..... [1]

(ii) Type check

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..... [1]

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