

Please check the examination details below before entering your candidate information

Candidate surname

Other names

Centre Number

Candidate Number

**Pearson Edexcel International  
Award in Lower Secondary**

**Tuesday 2 June 2020**

Afternoon (Time: 1 hour 20 minutes)

Paper Reference **LCP11/01**

**Computing**

**Year 9**

**Achievement Test**

**You do not need any other materials.**

Total Marks

### Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided  
– *there may be more space than you need.*

### Information

- The total mark for this paper is 80.
- The marks for **each** question are shown in brackets  
– *use this as a guide as to how much time to spend on each question.*
- You must **NOT** use a calculator.

### Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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## SECTION A

Answer ALL questions. Write your answers in the spaces provided.

Some questions must be answered with a cross . If you change your mind about an answer, put a line through the box  and then mark your new answer with a cross .

1 Which **one** of these does 'WAN' stand for?

- A Wide access node
- B Wide area network
- C Wireless access node
- D Wireless area network

(Total for Question 1 = 1 mark)

2 The Internet is used to transfer data.

(a) State what is meant by the term 'Internet'.

(1)

(b) Which **one** of these processes prepares data for transmission across the Internet?

(1)

- A Data is converted to ASCII
- B Data is added to a byte
- C Data is output to a device
- D Data is split into packets

(c) Which **one** of these is a description of a URL?

(1)

- A A language used to create a web page
- B A protocol for transferring data
- C A search engine
- D A web server address

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(d) Give **two** reasons why some people do not have access to the Internet.

(2)

1 .....

.....

2 .....

.....

**(Total for Question 2 = 5 marks)**

**3** Complete this sentence.

Data and ..... are stored in main memory.

**(Total for Question 3 = 1 mark)**

**4** Which **one** of these provides an interface between the computer and the user?

- A** Communication protocols
- B** Data structure
- C** Operating system
- D** Optical discs

**(Total for Question 4 = 1 mark)**



5 The table contains two operators used in the Python programming language.

(a) Complete the description of each operator in the table.

(2)

Operator	Description
<	
==	

(b) Which **one** of these is the **type** of operator used in the table?

(1)

- A Arithmetic
- B Boolean
- C Logical
- D Relational

(Total for Question 5 = 3 marks)

6 Two algorithms perform the same task.

Which **one** of these is the more efficient algorithm?

- A The one that creates fewer variables
- B The one that requires fewer operations
- C The one that takes more time to complete
- D The one that uses more storage

(Total for Question 6 = 1 mark)

7 Some televisions receive transmissions using broadcast technology.

Give **one other** way that a television can receive transmissions.

(Total for Question 7 = 1 mark)



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8 Complete the type of software license.

Open .....

(Total for Question 8 = 1 mark)

9 Draw **one** straight line from each example of utility software to the correct purpose.

**Utility software**

**Purpose**

Compression ●

Back-up ●

Anti-malware ●

● Protect from viruses

● Create copies of files

● Reduce file sizes

● Block IP addresses

● Convert file types

(Total for Question 9 = 3 marks)



10 Computers use binary to represent information.

(a) Which **one** of these is the number of bits in one byte?

(1)

- A 1
- B 4
- C 8
- D 16

(b) Convert the positive denary integer 87 to 8-bit binary.

(2)

.....

.....

.....

.....

(c) An image is represented by this binary pattern.

001000 111001 111110 001110 001010 001010

Complete the grid to show the image represented by the binary pattern.

(3)


(Total for Question 10 = 6 marks)



11 State **one** reason for connecting classroom computers in a network.

.....  
.....

(Total for Question 11 = 1 mark)

12 State what this Python code will do.

```
str(33)
```

.....  
.....

(Total for Question 12 = 1 mark)

13 Here is some Python code.

```
scores = [19, 42, 86, 4, 6, 2, 1, 0, 3]
scores.append(3)
print(scores[-1])
```

(a) Which **one** of these is the data structure used in the code?

(1)

- A Integer
- B List
- C Logic
- D Variable

(b) State the value at index position 3.

(1)

.....

(c) State the length of `scores` after the code is run.

(1)

.....

(Total for Question 13 = 3 marks)



14 A linear search algorithm is used to find a value in a list.

Which **one** of these positions in the list requires the **most** comparisons to find the value?

- A First
- B Last
- C Middle
- D Middle -1

(Total for Question 14 = 1 mark)

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**15** Look at the **map**.

Each block of the map is 100 kilometres wide.

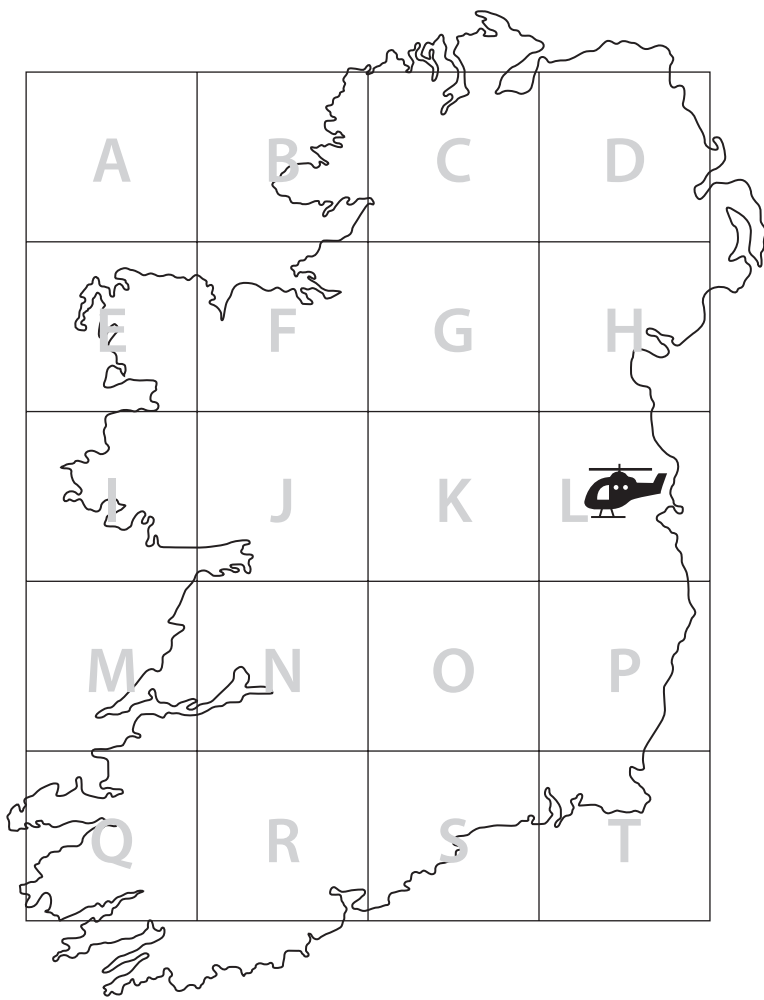
A rescue helicopter is in the centre of block L.

The helicopter is pointing towards block K.

The helicopter pilot receives these instructions:

move forward 300 kilometres  
repeat 3 times:  
    turn left 90 degrees  
    move forward 200 kilometres

Draw the path on the map that the helicopter would follow when the pilot carries out the instructions.



(Total for Question 15 = 3 marks)



16 A recording studio uses hard-disk drives to store recordings of musicians.

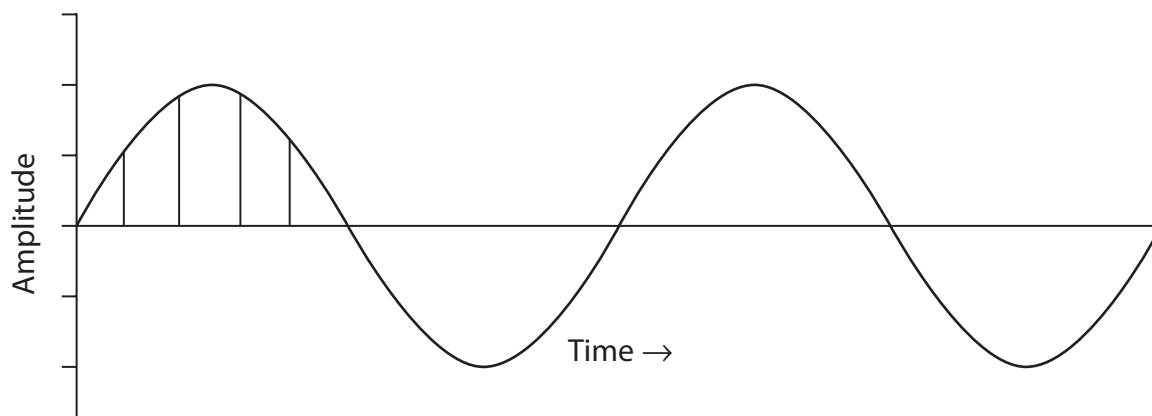
(a) State **one** advantage of using hard-disk drives rather than solid-state drives to store data.

(1)

(b) State the type of media used in a hard-disk drive.

(1)

(c) Look at the diagram in **Figure 1**.



**Figure 1**

Complete the sentence by using words from this list.

(3)

- amplitude
- bit
- rate
- sample
- second

A ..... of the ..... of a sound is measured thousands of times every .....



(d) Explain why increasing the bit-depth affects the representation of sound.

(2)

.....

.....

.....

.....

**(Total for Question 16 = 7 marks)**

**17** At the end of the first pass in a bubble sort, the largest value is in the correct position.

Describe how this happens.

.....

.....

.....

.....

.....

.....

**(Total for Question 17 = 3 marks)**

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**18** Here is a program written in Python.

```
age = int(input("Please enter your age: "))
if age < 5:
    print("You ride for free!")
elif age >= 5:
    print("You need a Child ticket")
elif age >= 10:
    print("You need a Junior ticket")
elif age >= 16:
    print("You need a Full Price ticket")
```

(a) The program contains an error and does not produce the expected output.

State the message the program would display after an age of 12 is input.

(1)

(b) State the type of error contained in this program.

(1)

**(Total for Question 18 = 2 marks)**



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19 Give **two** ways to reduce the environmental impact of the disposal of smartphones.

1 .....

.....

2 .....

.....

**(Total for Question 19 = 2 marks)**

20 A program will check that a password entered by a user matches the stored password.  
 It will keep asking the user to enter a password until they enter the correct password.  
 A welcome message will then be displayed.

Complete the program by adding code in the spaces provided.

```

storedPassword = "b3ArJ1mm"

userPass = ..... ("Enter the password: ")

while ..... storedPassword:
    userPass = input("Enter password: ")
    ..... ("Welcome")
  
```

**(Total for Question 20 = 4 marks)**

**TOTAL FOR SECTION A = 50 MARKS**



SECTION B

Answer ALL questions. Write your answers in the spaces provided.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

21 A company is creating a website that uses text and images.

(a) Look at this text.

*Apple Banana*

(i) State the font enhancement used on the word 'Apple'. (1)

(ii) Give **two other** font enhancements that could be used. (2)

1 .....

2 .....

(b) State **one** reason why a house style is used when creating documents for an organisation. (1)

(c) State the effect of cropping an image. (1)

(Total for Question 21 = 5 marks)

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22 A company uses a database.

(a) State **two** types of key that can be used in a database.

(2)

1 .....

2 .....

(b) Which **one** of these describes a relational database?

(1)

- A** Linked columns of data
- B** Linked fields of data
- C** Linked rows of data
- D** Linked tables of data

(c) Which **one** of these is a logical operator that can be used in a database query?

(1)

- A** AND
- B** Equals
- C** >
- D** =

(Total for Question 22 = 4 marks)

23 Which **one** of these document types should be used to create a short message to an employee?

- A** Memo
- B** Newsletter
- C** Poster
- D** Report

(Total for Question 23 = 1 mark)



24 A computer game designer needs a logo.

State the **type** of software application that should be used for this.

(Total for Question 24 = 1 mark)

25 State **one** feature that can be added to a presentation to allow a user to move to a specific slide.

(Total for Question 25 = 1 mark)

26 Look at **Figure 2**.

It shows part of a spreadsheet used to calculate total sales of sandwiches.

	A	B	C	D	E
1	<b>Item name</b>	<b>Last sale</b>	<b>Price</b>	<b>Number sold</b>	<b>Total</b>
2	Cheese	09:05:06	3.60	732	2,635.20
3	Vegetable	09:11:06	3.30	873	2,880.90
4	Italian	09:00:06	3.40	508	1,727.20
5				508	

**Figure 2**

(a) A function is used in cell D5 to display the lowest number of sales.

Complete the function used in cell D5.

(2)

= ..... (.....)

(b) State what would be shown if this formula was entered in cell A5.

=LEN(A1)

(1)

(c) Give the formula that is used in cell E2. You must use cell references.

(1)

(d) State the format used in cell B2.

(1)





(e) State **one** reason why data is sorted.

(1)

.....

.....

**(Total for Question 26 = 6 marks)**

**27** Sapna uses a compression tool on a file before attaching it to an email.

State **one** benefit to Sapna of compressing the file.

.....

.....

**(Total for Question 27 = 1 mark)**

**28** A teacher will give a presentation to primary school children.

She wants a slide to use when she reads this text:

“We will now hear some music from our school band.”

Tick **one** box to select the best slide.

A slide with the text on

A slide with an image of a military band

A slide with an image of a smiling face

A slide with an image of the school band

**(Total for Question 28 = 1 mark)**



29 Explain why a logo should be stored as a vector graphic.

.....

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.....

.....

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.....

**(Total for Question 29 = 3 marks)**

30 State **one** reason for using cloud-based storage.

.....

**(Total for Question 30 = 1 mark)**

31 Describe how anchors can be used to allow a user to navigate a web page.

.....

.....

.....

.....

.....

**(Total for Question 31 = 2 marks)**

32 State the type of graph that should be used to show the relationship between money made from sales of ice cream each month and monthly temperatures.

.....

**(Total for Question 32 = 1 mark)**



**33** Kate can use data from primary or secondary sources.

(a) Which **one** of these is a secondary source that Kate could use?

(1)

- A** A newspaper article Kate reads
- B** A photograph Kate takes
- C** Kate's responses to a questionnaire
- D** Responses to interview questions that Kate asks

(b) Explain why it is important to use data from secondary sources in addition to primary sources.

(2)

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**(Total for Question 33 = 3 marks)**

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**TOTAL FOR SECTION B = 30 MARKS**  
**TOTAL FOR PAPER = 80 MARKS**



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