Candidate surname

Other names

**Pearson Edexcel
International Award
in Lower Secondary**

Centre Number

Candidate Number

Time 1 hour 20 minutes

**Paper
reference** **LCP11/01**

Computing

**Year 9
Achievement Test**

You do not need any other materials.

Total Marks

Instructions

Information

Advice

Turn over ▶

Pearson

SECTION A

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 ☒.

1 Here is some Python code.

```
num1 = 5 % 2
num2 = 5 // 2
```

(a) Which **one** of these operators is used to assign a value to a variable?

(1)

☒ **A** =

☒ **B** %

☒ **C** /

☒ **D** //

(b) Which **one** of these is the value of the variable `num1`?

(1)

☒ **A** 1

☒ **B** 2

☒ **C** 5

☒ **D** 10

(c) Which **one** of these is the value of the variable `num2`?

(1)

☒ **A** 1

☒ **B** 2

☒ **C** 5

☒ **D** 10

(d) State the result of this expression.

```
num1 == num2 and num2 == num2
```

(1)

....

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(e) What type of operator is `and`?

(1)

☒ **A** Addition

☒ **B** Arithmetic

☒ **C** Logical

☒ **D** Relationship

(Total for Question 1 = 5 marks)

2 Here are three online profile settings.

- Friends

- Private

- Public

(a) Identify the **most** secure setting.

(1)

....

(b) Give **one** reason for your choice.

(1)

....

....

(Total for Question 2 = 2 marks)

3 Computers contain hardware components.

(a) Complete this sentence.

Instructions are executed in the ....

(1)

(b) Which **one** of these stores data permanently?

(1)

- ☒ **A** Input device
- ☒ **B** Main memory
- ☒ **C** Output device
- ☒ **D** Secondary storage

(c) State the type of memory that stores the program needed to load the operating system.

(1)

....

(Total for Question 3 = 3 marks)

4 Here is some Python code.

```python
child = "Isla"
count = 30
target = 80
count = count - 10
target = target - count
print(child + str(count - 10) + str(target + count))
```

(a) State the value of the variable `child` after the code runs.

(1)

....

(b) State the value of the variable `count` after the code runs.

(1)

....

(c) State the value of the variable `target` after the code runs.

(1)

....

(d) Complete the box to show what will be displayed after the code runs.

(3)

```

```

(Total for Question 4 = 6 marks)

5 State the type of anti-malware that prevents software from recording what a user types on a keyboard.

....

(Total for Question 5 = 1 mark)

6 Explain **one** benefit of increasing the number of bits used to represent each pixel in an image.

....

....

....

....

(Total for Question 6 = 2 marks)

7 The World Wide Web is stored on computers that are connected to the Internet.

State what is meant by the term 'World Wide Web'.

....

....

(Total for Question 7 = 1 mark)

8 Which **one** of these is measured in bits per second?

⊠ **A** Network data speeds

⊠ **B** Number of packets stored

⊠ **C** Search engine speeds

⊠ **D** Web server storage

(Total for Question 8 = 1 mark)

9 Complete this sentence.

A standard that uses seven bits to encode characters

is ....

(Total for Question 9 = 1 mark)

10 State **one** benefit of using Unicode to encode characters.

....

(Total for Question 10 = 1 mark)

11 Which **one** of these is the result of this binary addition?

```
 0100
+0110
```

☒ **A** 0111

☒ **B** 0110

☒ **C** 1010

☒ **D** 1110

(Total for Question 11 = 1 mark)

12 Data is sent between computers.

(a) Which **one** of these can be used to intercept data?

(1)

☒ **A** Eavesdropping

☒ **B** Filtering

☒ **C** Switching

☒ **D** Transmitting

(b) Which **one** of these is increased by using wired rather than wireless connectivity?

(1)

☒ **A** Bandwidth

☒ **B** Memory

☒ **C** Networks

☒ **D** Storage

(c) Explain why Near-field Communication (NFC) is a better choice than Bluetooth for making payments in a shop.

(2)

....

....

....

....

....

(Total for Question 12 = 4 marks)

13 Describe the role of a network switch.

....

....

....

....

....

....

....

(Total for Question 13 = 3 marks)

14 State the role of network filter software.

....

....

(Total for Question 14 = 1 mark)

15 Here is an image.
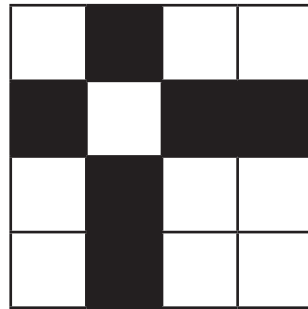
The image is represented by this binary pattern.

0100 1011 0100 0100

(a) State the number of pixels in the image.

(1)

....

(b) Complete this sentence.

(2)

The resolution of the image is .... x ....

and the colour depth is ....

(Total for Question 15 = 3 marks)

16 Complete this sentence.

The software that provides an interface between the computer and the user

is the ....

(Total for Question 16 = 1 mark)

17 Portable music players use solid-state storage.

(a) State **two other** types of storage media.

(2)

1 ....

2 ....

(b) Give **two** reasons why solid-state is the best choice of storage for portable music players.

(2)

1 ....

....

2 ....

....

(Total for Question 17 = 4 marks)

18 Which **one** of these is a process used by a bubble sort algorithm?

☒ **A** Ascend

☒ **B** Compare

☒ **C** Decompose

☒ **D** Delete

(Total for Question 18 = 1 mark)

19 An oven safety feature **continuously** checks if:

- the door is open
  and
- the temperature is more than 40.

A warning sound is played for one second if both conditions are true.

Draw a flowchart to represent an algorithm that would do this.

(Total for Question 19 = 3 marks)

20 The environment can be harmed by the use and disposal of digital technologies.

Give **two** ways that the **manufacture** of digital technologies can harm the environment.

1 ....

....

2 ....

....

(Total for Question 20 = 2 marks)

21 A program takes input from the user and converts it to an integer.

It outputs "Valid" if the input is a three-digit integer.

Otherwise, it outputs "Fail".

Complete the program by adding code in the spaces provided.

```
a = int(input("Enter a three digit number"))

if a ........................ 99 and a < ........................:

    print(........................)

........................:

    print(........................)
```

(Total for Question 21 = 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 ☒.

22 A company is creating a document.

(a) Which **one** of these will repeat on all pages?

(1)

☒ **A** Header

☒ **B** Page break

☒ **C** Sub-heading

☒ **D** Text box

(b) Look at **Figure 1**.

> Pearson is the world's leading learning company, with 35,000 employees in more than 70 countries working together.
>
> Pearson is the world's leading learning company, with 35,000 employees in more than 70 countries working together.

Figure 1

State the alignment used in the **second** paragraph.

(1)

....

(c) Give **one** reason for using headings in a document.

(1)

....

....

(d) State the **type** of software application that should be used to create a company newsletter.

(1)

....

(Total for Question 22 = 4 marks)

23 A designer creates a slide for a presentation to support a speech.

(a) Which **one** of these is the best choice for content on the slide?

(1)

☒ **A** 1 relevant image

☒ **B** 10 web links

☒ **C** 50 bullet points

☒ **D** 1000 words in a text box

(b) State **one** feature that can be used in a presentation to make text on a slide move.

(1)

....

(Total for Question 23 = 2 marks)

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QUESTION 24 BEGINS ON THE NEXT PAGE.

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24 Look at **Figure 2**.

It shows part of a spreadsheet used to calculate data about drinks.

	A	B	C	D	E	F
1	**Flavour**	**Buy price**	**Sell price**	**Profit (each)**	**Number sold this week**	**Profit (total)**
2	Vanilla	0.80	1.00		100	
3	Berry	0.65	0.80		30	
4	Banana	0.70	1.00		120	
5	Chocolate	0.60	0.95		140	
6					=E1+SUM(E2:E5)	

Figure 2

(a) A formula is needed in cell D2.

Complete the formula that should be used in cell D2.

(2)

= ....

(b) A formula is needed in cell F2.

Complete the formula that should be used in cell F2.

(2)

= ....

(c) State the format that should be used in cell B2.

(1)

....

(d) Give **one** reason why the formula in cell E6 will not work.

(1)

....

....

(e) The chart in **Figure 3** displays the sales data from the spreadsheet in **Figure 2**.

NUMBER SOLD
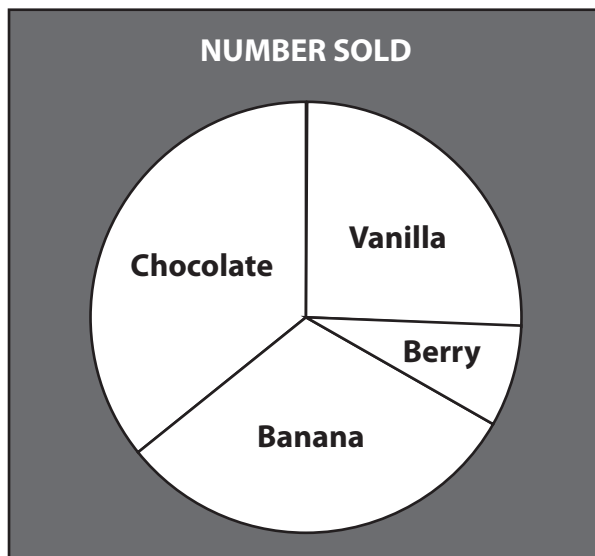
Figure 3

Which **one** of these is the data range from **Figure 2** required to create the chart?

(1)

- ☒ **A** A1:E5
- ☒ **B** A2:A5,E2:E5
- ☒ **C** A2:A5+E1
- ☒ **D** E1+A2-A5

(f) State the reason why a pie chart is a good choice to display this data.

(1)

....

....

(g) State **one** reason why the data shown in column E might not reliably predict future sales.

(1)

....

....

....

(Total for Question 24 = 9 marks)

25 Complete the sentence by using words from this list.

- field
- file
- record
- report

Each row in a database table is a ....

and each column is a ....

(Total for Question 25 = 2 marks)

26 Describe how the operator **AND** is used in a database query.

....

....

....

....

(Total for Question 26 = 2 marks)

27 Explain why using WYSIWYG (what you see is what you get) software may be a better choice than writing HTML to create a web page.

....

....

....

....

....

....

(Total for Question 27 = 3 marks)

28 Complete this sentence.

A hyperlink allows a user to move from an anchor to a ....

(Total for Question 28 = 1 mark)

29 Vector graphics are often used for logos.

State what **type** of graphic a photograph is.

....

(Total for Question 29 = 1 mark)

30 State **one** effect of compressing an image.

....

....

(Total for Question 30 = 1 mark)

31 Rowan needs content for a web page.

Which **one** of these is a primary source?

- ☒ **A** A quote from a celebrity
- ☒ **B** An image from a video Rowan creates
- ☒ **C** Audio recorded from a television show
- ☒ **D** Video downloaded from the World Wide Web

(Total for Question 31 = 1 mark)

32 Which **one** of these fonts would be the most appropriate for use on a hospital sign?

⊠ **A** *SURGERY*

⊠ **B** SURGERY

⊠ **C** *SURGERY*

⊠ **D** **SURGERY**

(Total for Question 32 = 1 mark)

33 Emily wants to let others access her file, but not edit the content.

State the type of file permission that Emily should set.

....

....

(Total for Question 33 = 1 mark)

34 An image is 200 pixels x 200 pixels.

It is resized to 400 pixels x 300 pixels.

Explain why it would have been better to resize it to 400 pixels x 400 pixels.

....

....

....

....

(Total for Question 34 = 2 marks)

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