

ICT applications – 2021/20 IGCSE 0417

1. **Nov/2021/Paper_11/No.9**

Robots are used to spray paint cars in a car production company.

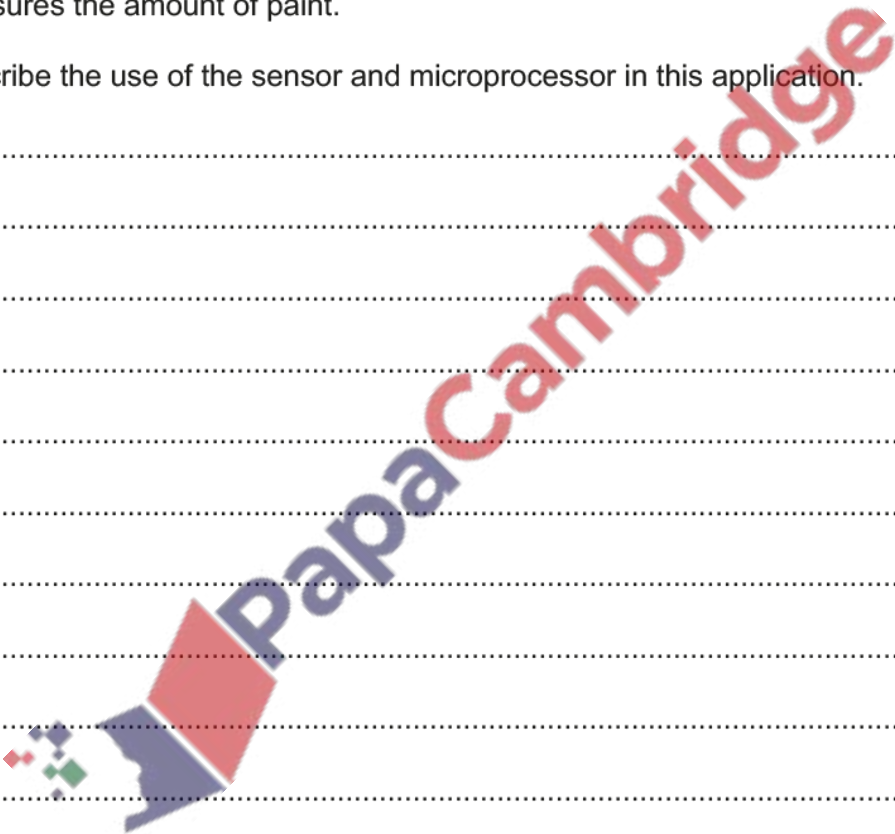
(a) Describe **two** other jobs that robots can perform in car production.

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..... [2]

(b) When the spray paint can is empty it needs to be refilled. There is a sensor in the can which measures the amount of paint.

Describe the use of the sensor and microprocessor in this application.

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2. Nov/2021/Paper_13/No.3

(a) Identify **two** applications that use expert systems.

1

2

[2]

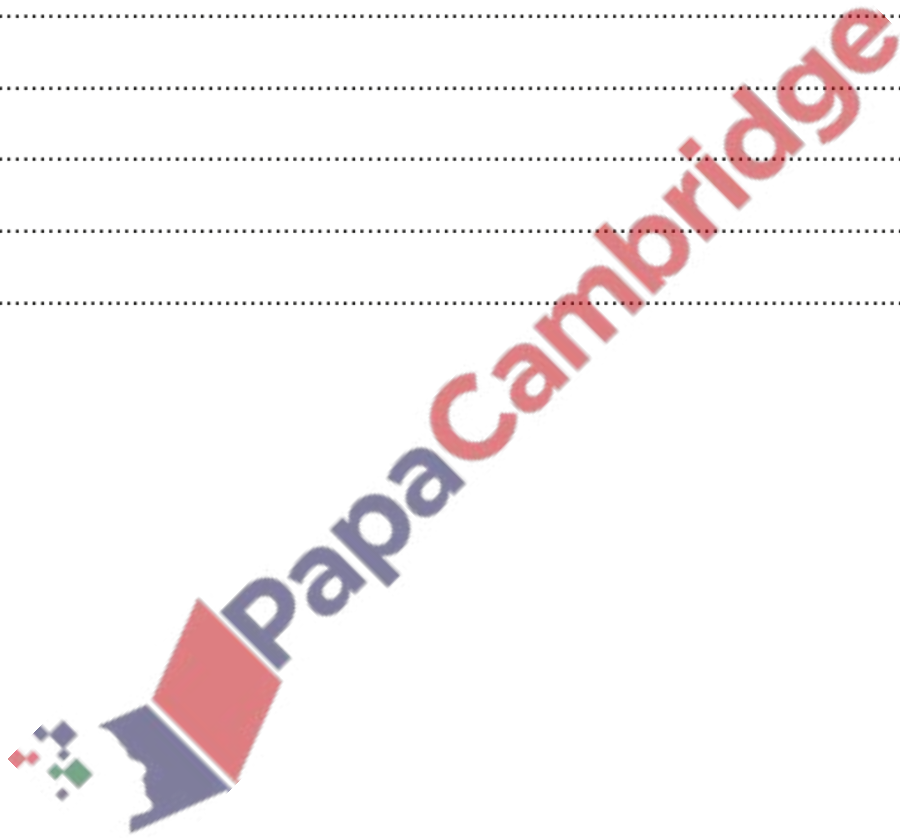
(b) Identify **three** components found in an expert system.

1

2

3

[3]



(b) Explain the term virtual reality.

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5. Mar/2021/Paper_12/No.4b

(b) Describe the computer processing involved in the use of a microprocessor-controlled fitness tracker when displaying and monitoring the blood pressure of the user.

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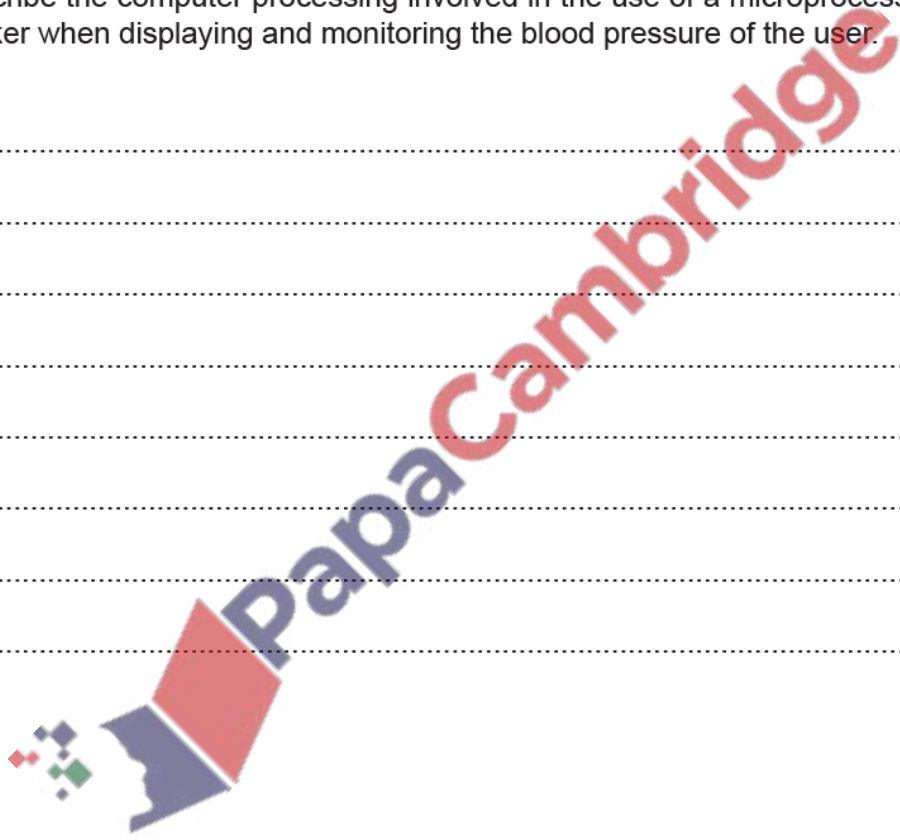
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7. June/2021/Paper_11/No.13

RockIT Airlines representatives use a computer booking system to book flights for customers.

A representative from the airline types in the customer reference number, the number of passengers, departure time, departure date, departure airport and the destination airport.

A customer is planning to take a flight from London Heathrow Airport. The representative types in a code LHR for London Heathrow Airport. One of the reasons for using a code for the airport is to improve data accuracy.

(a) Describe **two** other advantages of using a code rather than typing out the full name.

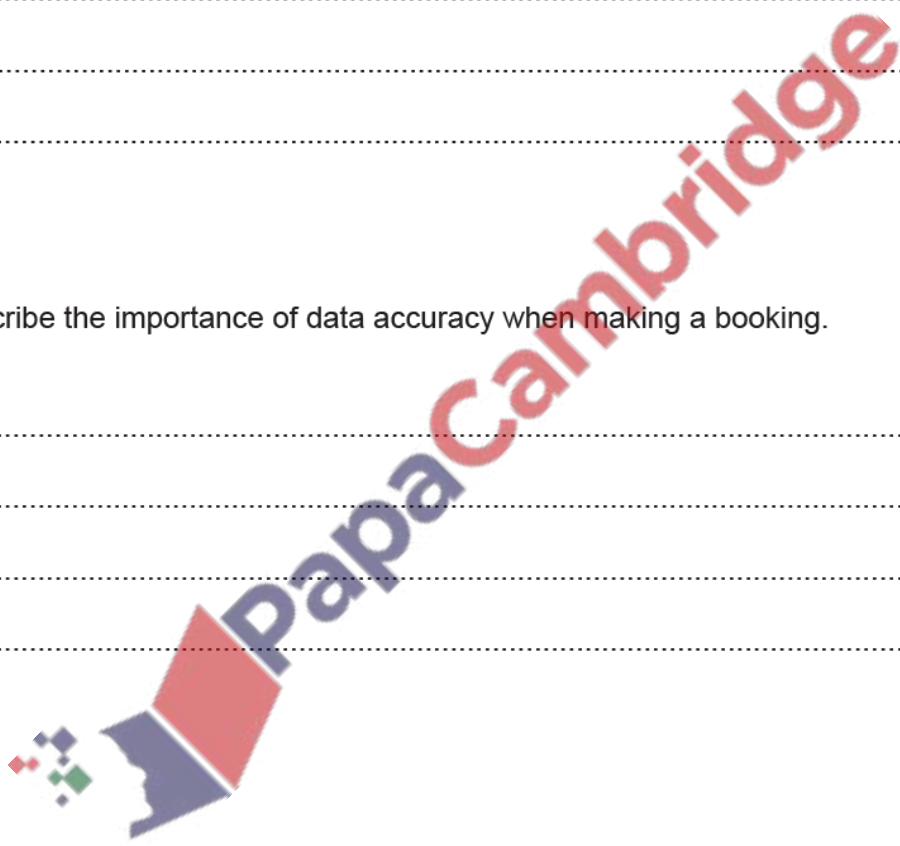
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[2]

(b) Describe the importance of data accuracy when making a booking.

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[2]



8. June/2021/Paper_11/No.14

A road through a village has a speed limit of 45 kilometres per hour. The police are checking and recording the speed of vehicles passing through the village using measuring hardware and software, so they can produce a report of their findings.

(a) Explain the difference between measurement and control when using microprocessors.

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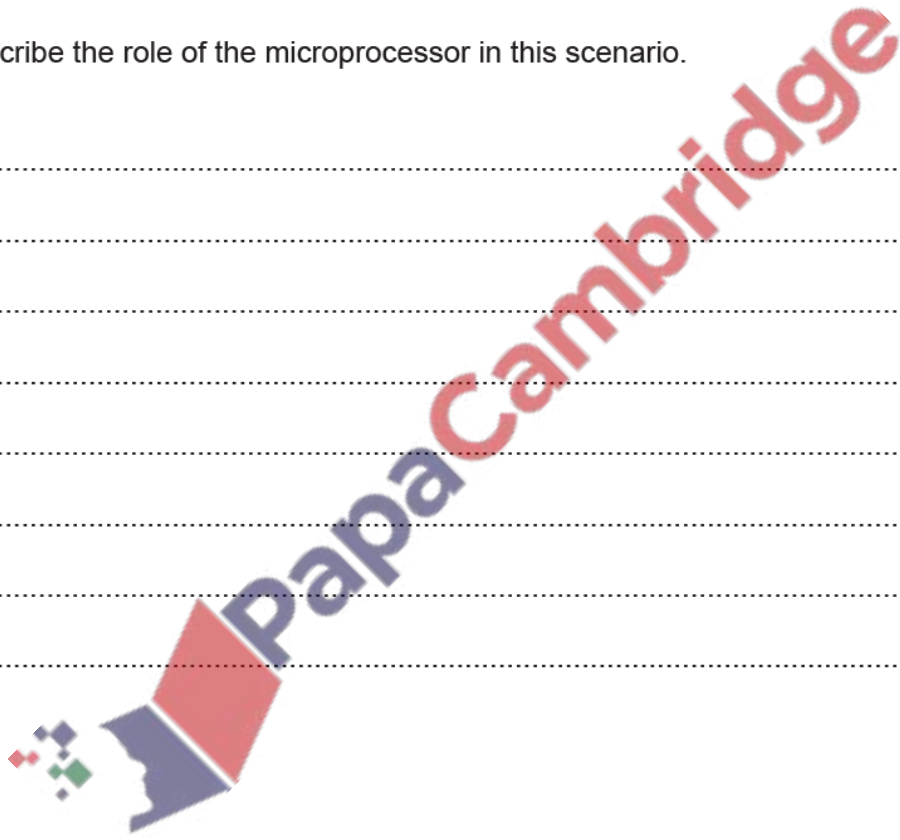
[2]

(b) Describe the role of the microprocessor in this scenario.

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[4]

9.



Tick (✓) whether the following are examples of **control**, **measurement** or **modelling** applications.

	control (✓)	measurement (✓)	modelling (✓)
Personal finance			
Weather forecasting			
Burglar alarms			
Weather stations			

[4]

- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.

