

.....

.....

.....

.....

.....

.....

.....

.....

.....

2 Use the following words to complete the paragraph that follows. Each word can be used once, more than once or not at all.

- |              |              |            |
|--------------|--------------|------------|
| » accident   | » clever     | » phishing |
| » actuators  | » congestion | » safer    |
| » automatic  | » hacking    | » sensors  |
| » autonomous | » hazardous  | » smart    |
| » cameras    | » human      | » speeding |

Computer-controlled driverless vehicles are referred to as ..... and can include cars, buses and vans. They rely on devices, such as ..... and ..... to 'understand' their environment. The big advantage is these type of vehicles are ..... as they remove the ..... element.

Changing gears or applying, for example, is done by ..... controlling physical actions and operating motors.

Motorway signs and traffic management can also be computer-controlled; these are referred to as being ..... systems. If there has been an ..... or there is considerable traffic ....., then the computer system can operate signs to keep the traffic moving efficiently.

One problem with this technology is the risk of a cybercriminal carrying out a ..... attack on the computer system to take control of a section of road or a vehicle.

3 a Explain what is meant by an autonomous vehicle.

.....

.....

.....

.....

b Describe **three** advantages of using autonomous vehicles.

1 .....

.....

2 .....

.....

3 .....

.....

c Describe **three** disadvantages of using autonomous vehicles.

1 .....

.....

2 .....

.....

3 .....

.....

d Explain why public acceptance of autonomous trains has been very positive and yet very negative regarding autonomous cars and aeroplanes.

.....

.....

.....

.....

.....

.....