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

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|--------------|--------------|------------|
| » 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.

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

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

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

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