Chapter 6·4 Exam Q Year 11

Question 1

(3 marks)

Select one electrical safety device you have studied this year and explain how it works.

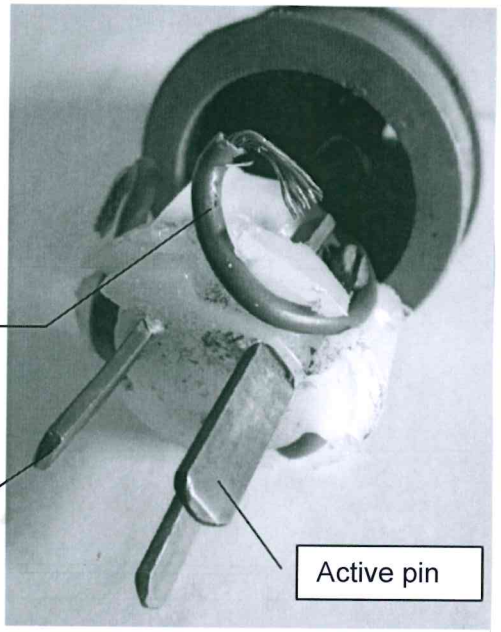
Safety device: _____

Explanation: _____

Question 2

(5 marks)

A person complained to an electrician about getting a shock when changing a light globe in a lamp even though the lamp had been switched off. The electrician examined the plug and found the active and neutral wires had been swapped around in the plug and explained that appliance switches are only designed to operate on the active wire.



(a) Describe the conditions that led to the person receiving the shock. (3 marks)

(b) Name a safety feature in modern houses that limits the risk of receiving an electric shock, and describe how it works. (2 marks)

Question 3

(3 marks)

Many devices have fuses installed in their electrical circuits to protect them and their users from excess current.

(a) State a cause of excess current being delivered to a device. (1 mark)

_____

(b) Explain how a fuse works to prevent damage to a device. (2 marks)

Question 4

(4 marks)

A toaster malfunctions and does not eject the toasted bread. Describe the possible dangers associated with getting the toasted bread out of the toaster with a metal-handled knife.