

Question 1 (2 marks):

Identify **two** reasons why fibre optic cable would be preferred over wireless connectivity.

Question 2 (15 marks):

A school currently has a cabled network but wants to add wireless networking across the whole campus. There are concerns that unauthorized people could access the data on the wireless network. The school has decided to implement a virtual private network (VPN) to provide access to its network. Describe **two** hardware components the school will need to implement the wireless network. [4] a. Identify **two** advantages to the students of the new wireless network. [2] b. Outline **two** methods the school could employ to prevent network data from being accessed over their wireless system. [4] c. Identify **two** technologies the school would require to provide a VPN. [2] d. Explain **one** benefit to the staff of using a VPN to remotely access the school network. [3] e.

Question 3 (1 marks):

Define the term _data packet_.