Name: Class: Mark:

1. Eric works in a recruitment agency. Three days a week he works in the office and two days a week he visits clients or works from home.

The office computers are set up in a Local Area Network (LAN).

(a) Describe how a LAN can be set up. [4]

(b) Eric often has to make phone calls whilst driving. To do this, he connects his phone to his car stereo using Bluetooth.

State the type of network that Eric creates when he does this. [1]

(c) When Eric is working away from the office he will make use of a virtual private   
network (VPN).

Explain **two** advantages of Eric using VPN. [4]

The company will be installing a second office in a different city. They will connect these two offices to form one network using a leased line.

(d) State the type of network that will be created as a result. [1]

(e) Explain **two** advantages of installing a leased line to connect the two companies. [4]

2. A new luxury home is being created with the following technologies being installed.

* Smart TV and surround system in the cinema room
* Smart speakers in every room
* Access to the Internet from any room in the house and in the front and back gardens
* Smart enabled devices such as light switches, light bulbs, CCTV and burglar alarm

Discuss the different ways that the house could be networked together. [6]

[Total 20 marks]