1. Nov/2022/Paper_31/No.1

   Explain how each of the following is used in a network.

   **(a)** web server

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   **(b)** mail server

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   **(c)** print server

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Packet switching is one way of transmitting data between computers in networks. The User Datagram Protocol (UDP) is a protocol used when creating data packets to send to other computers on the network.

**(a)** Explain how the contents of the header are used when sending a data packet using UDP.

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**(b)** Describe the drawbacks of using UDP to send data over a network.

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**3.**

Discuss the advantages and disadvantages of the use of microwave transmissions for communications.

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**4.** Nov/2022/Paper_31/No.9

Bit rate is a measure of how fast data can be sent from one device to another on a network.

**(a)** Describe how the bit rate of a video stream is measured on a network.

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**(b)** Identify **two** factors that can affect the bit rate in data communication.

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**5.**

Data stored on a network can be subject to different types of threats.

Explain how these threats can be detected.

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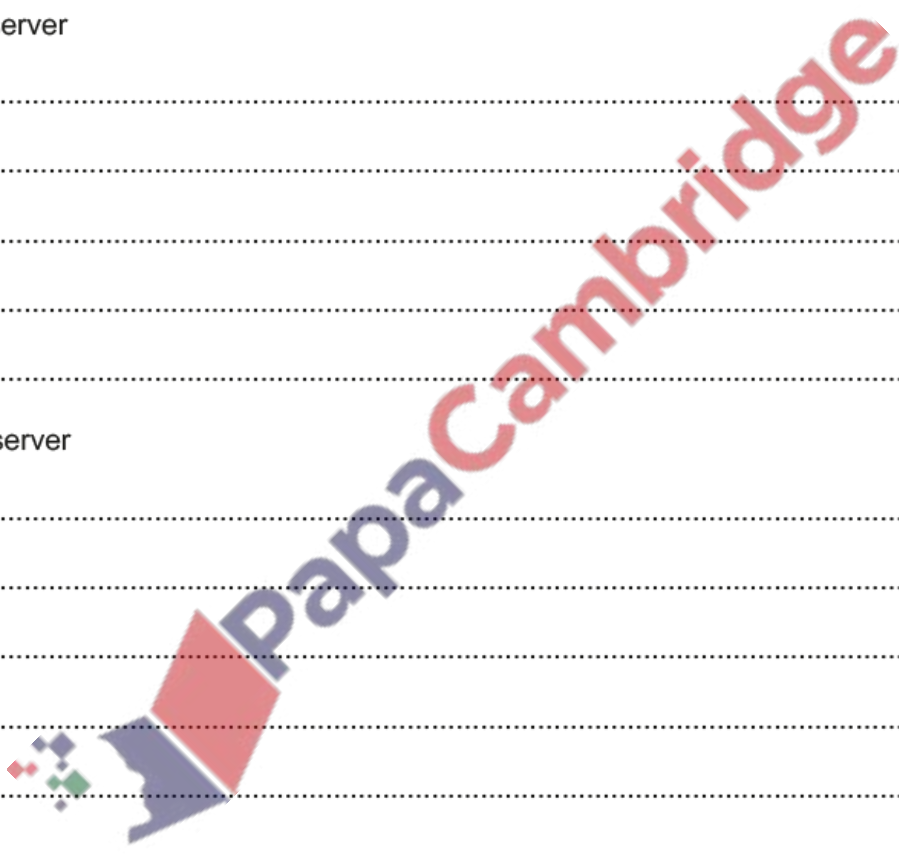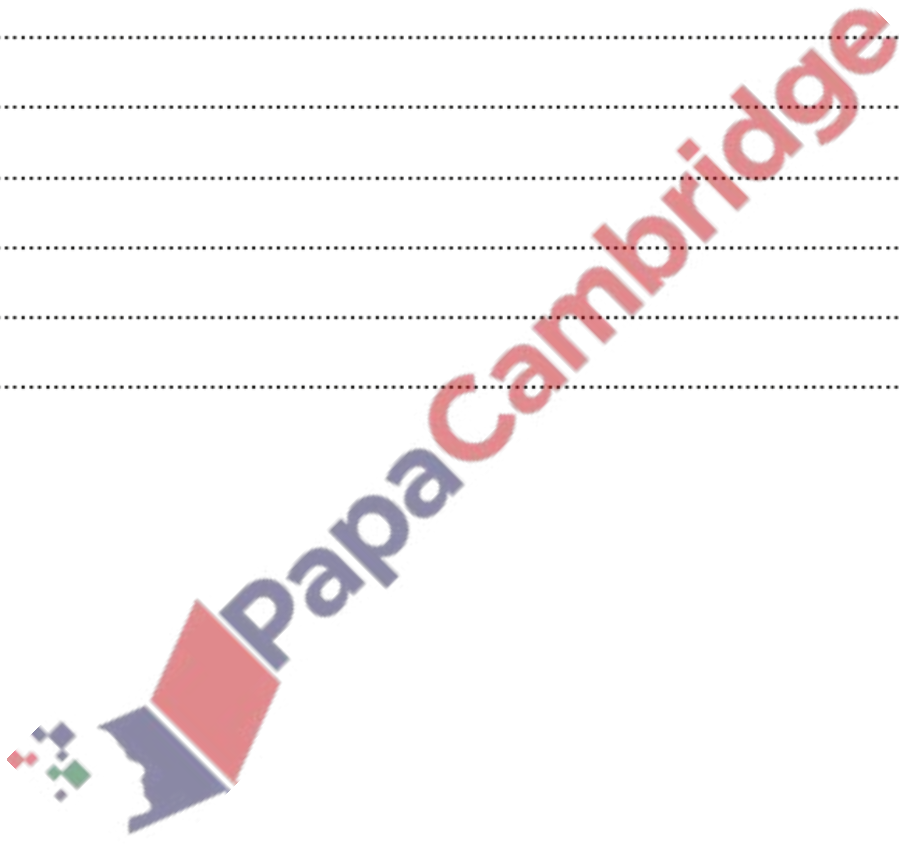
Data can be sent over computer networks and the internet using tunneling.

(a) Give **two** reasons why tunneling is used for sending data.

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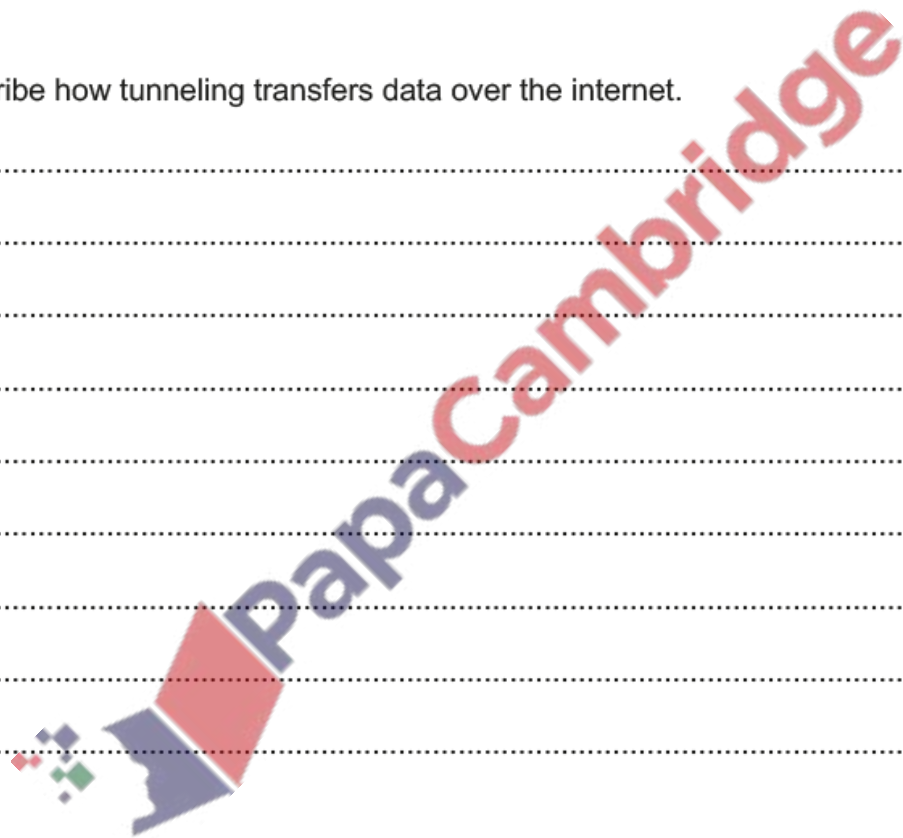(b) Describe how tunneling transfers data over the internet.

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**7.**

Explain how an FTP server carries out its role in a computer network.

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**8.**

Mobile devices can use Near Field Communication (NFC) and Bluetooth to exchange data.

**(a)** Describe **three** uses of NFC in mobile devices.

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**(b)** Discuss the differences between NFC and Bluetooth when used for exchanging data between mobile devices.

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A company designs and manages the construction of buildings. It has a client-server network for use by its designers and project managers so that they have access to the software resources they require.

Justify the use of the client-server model of networking in the company.

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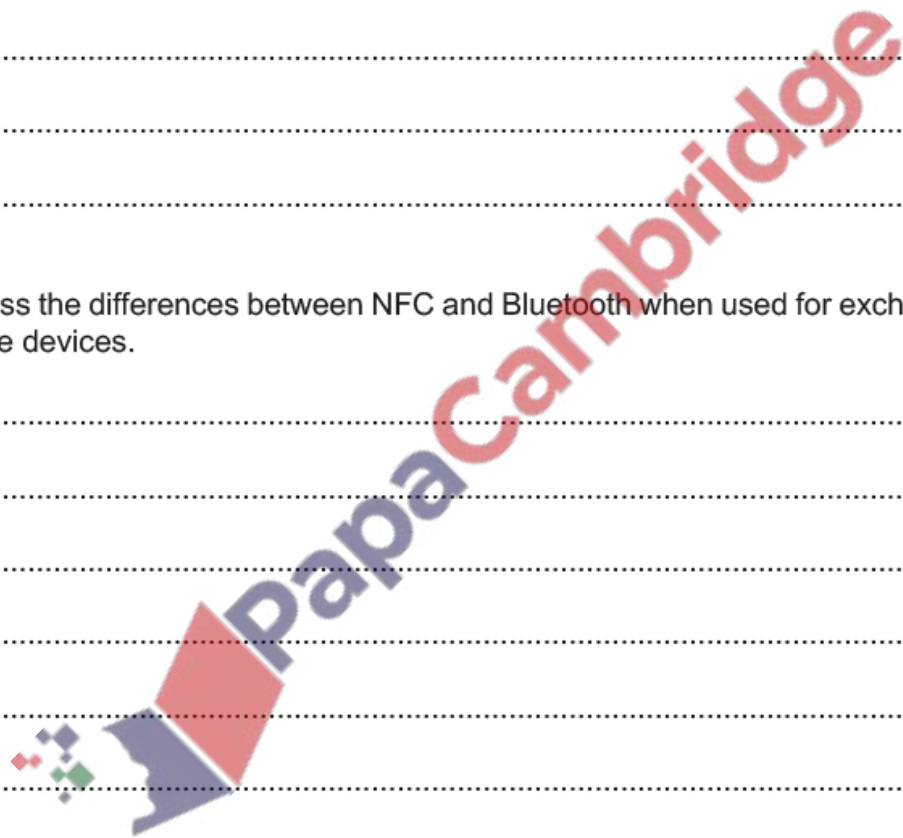
**10.**

Explain how each of the following is used in a network.

**(a)** web server

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**(b)** mail server

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**(c)** print server

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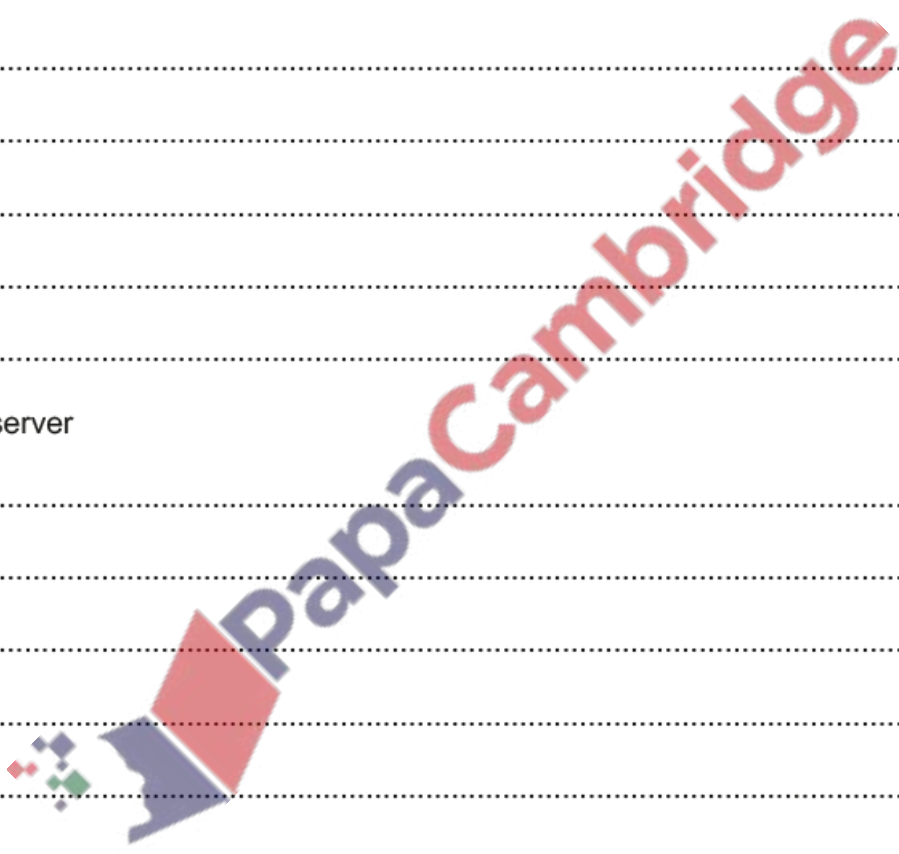................................................................................................................................................. [2]

Packet switching is one way of transmitting data between computers in networks. The User Datagram Protocol (UDP) is a protocol used when creating data packets to send to other computers on the network.

**(a)** Explain how the contents of the header are used when sending a data packet using UDP.

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**(b)** Describe the drawbacks of using UDP to send data over a network.

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Discuss the advantages and disadvantages of the use of microwave transmissions for communications.

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Bit rate is a measure of how fast data can be sent from one device to another on a network.

**(a)** Describe how the bit rate of a video stream is measured on a network.

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**(b)** Identify **two** factors that can affect the bit rate in data communication.

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Data stored on a network can be subject to different types of threats.

Explain how these threats can be detected.

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**15.**

Evaluate the use of a proxy server for web access in a school.

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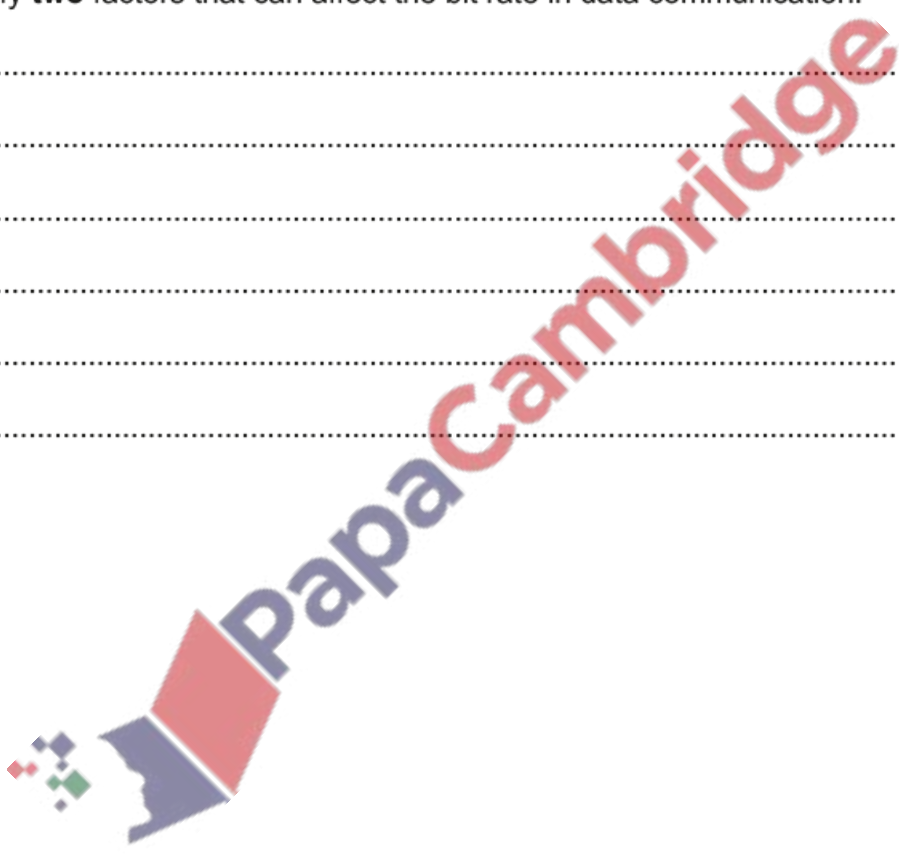
Frame Relay is used in networks.

**(a)** Explain why Frame Relay is used.

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**(b)** Explain the drawbacks of using Frame Relay.

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Email uses a system based on the client-server model.

Explain how emails are sent and received using this system.

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Evaluate the use of a proxy server for web access in a school.

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Contrast the characteristics of local area networks (LANs) and wide area networks (WANs).

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Microwave transmission is used to send data between devices at different locations.

**(a)** Explain how microwaves are used to transmit data between devices.

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**(b)** Describe **four** ways that microwave transmission is used in communication systems.

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**21.**

Evaluate the use of a Virtual Private Network (VPN) when using the internet.

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