

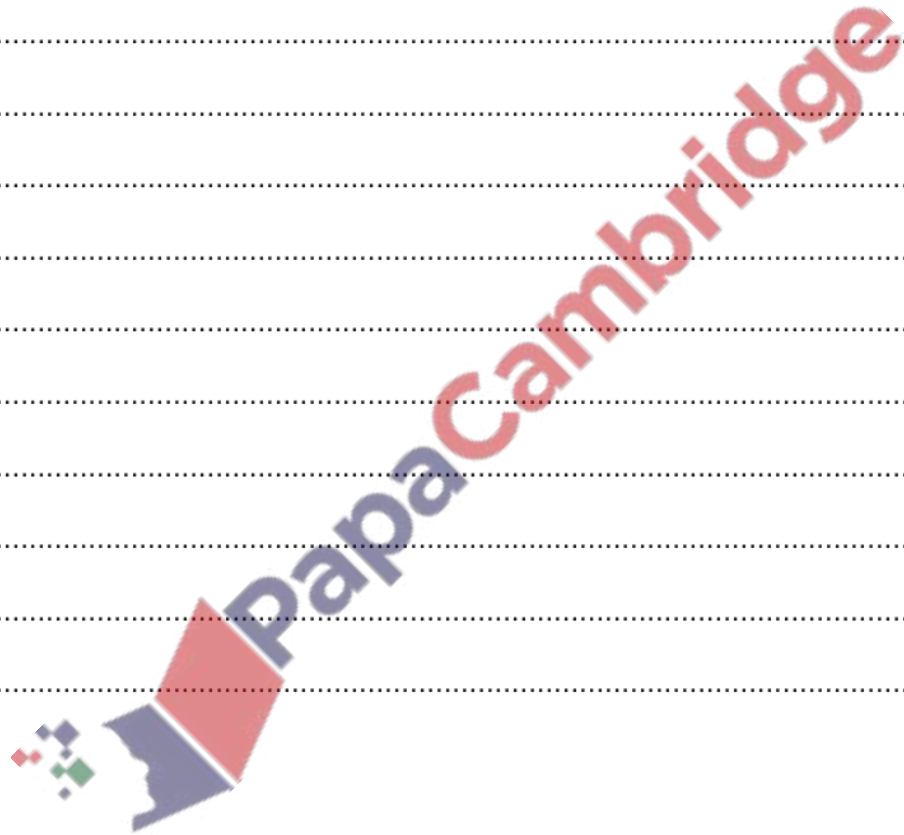
**1.** Nov/2021/Paper\_31/No.3

Peer-to-peer networking can account for a large percentage of all internet traffic. It is often used to transfer large files.

(a) Describe how peer-to-peer networking uses BitTorrent to transfer large data files between several users.

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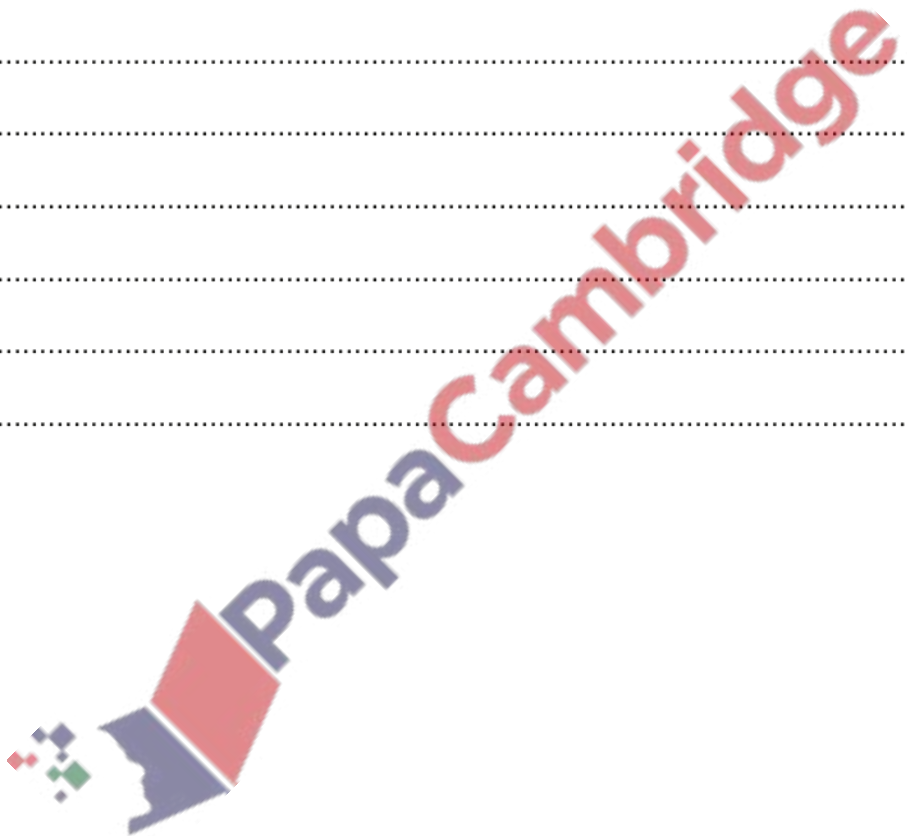
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(b) Describe how the use of BitTorrent for peer-to-peer networking can cause security issues to arise.

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7. Nov/2021/Paper\_33/No.3

Peer-to-peer networking can account for a large percentage of all internet traffic. It is often used to transfer large files.

- (a) Describe how peer-to-peer networking uses BitTorrent to transfer large data files between several users.

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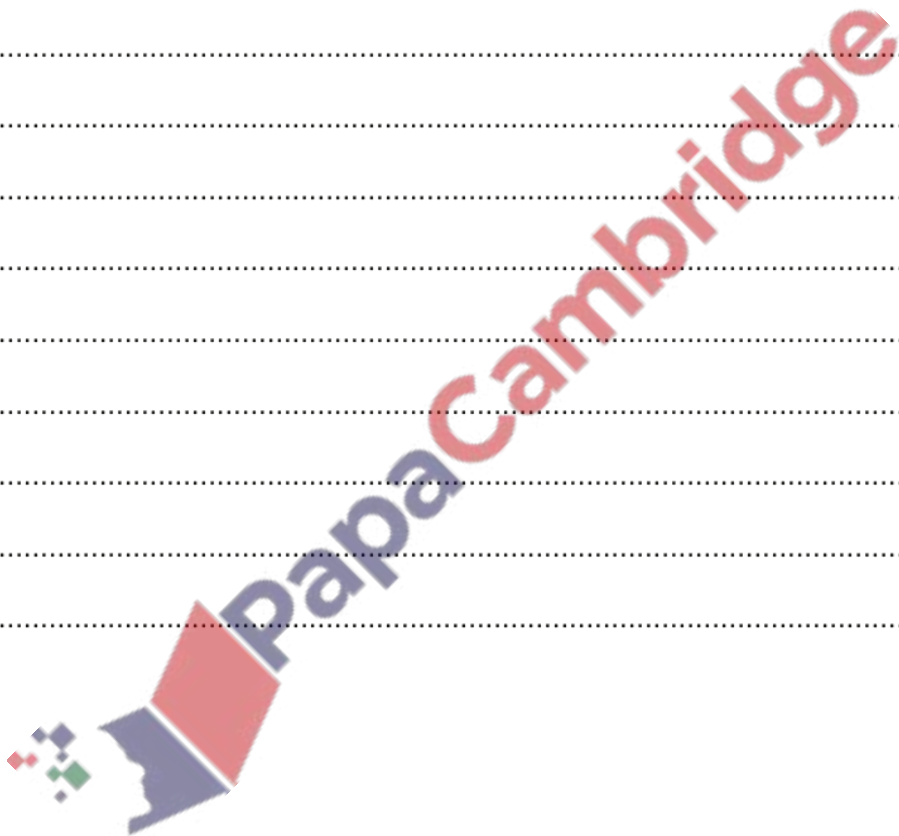
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(b) Describe how the use of BitTorrent for peer-to-peer networking can cause security issues to arise.

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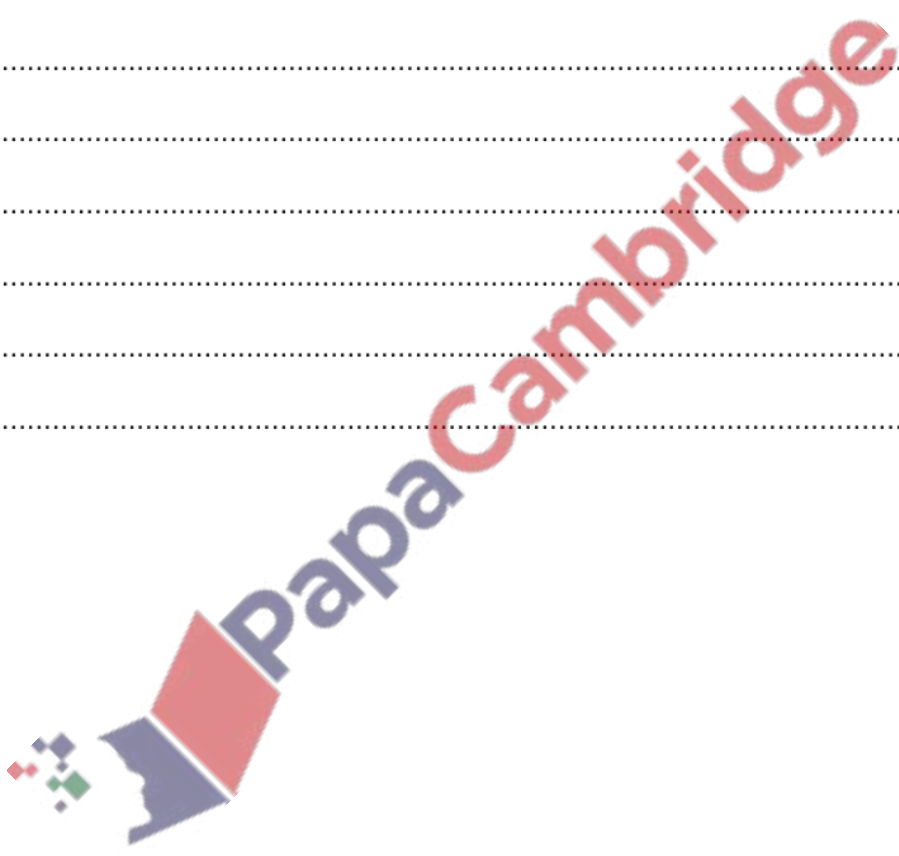
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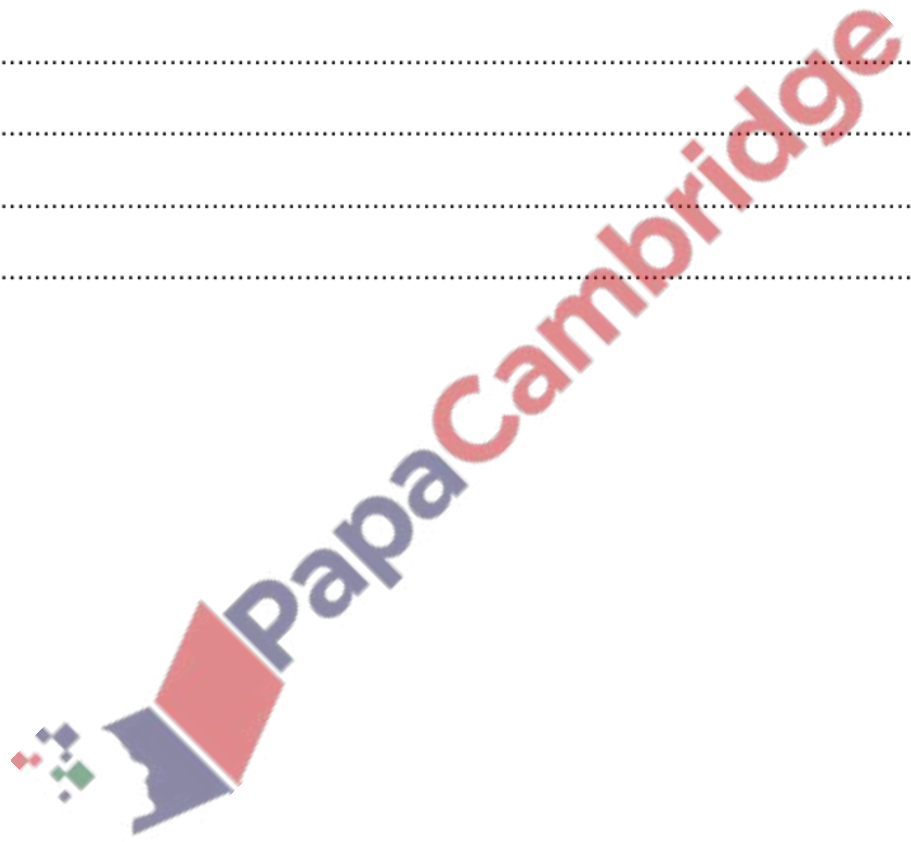


Web-conferencing is used to enable people to work together to produce documents.

(a) Describe, in detail, the hardware that is required for web-conferencing.

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(b) Describe the features of web-conferencing software.

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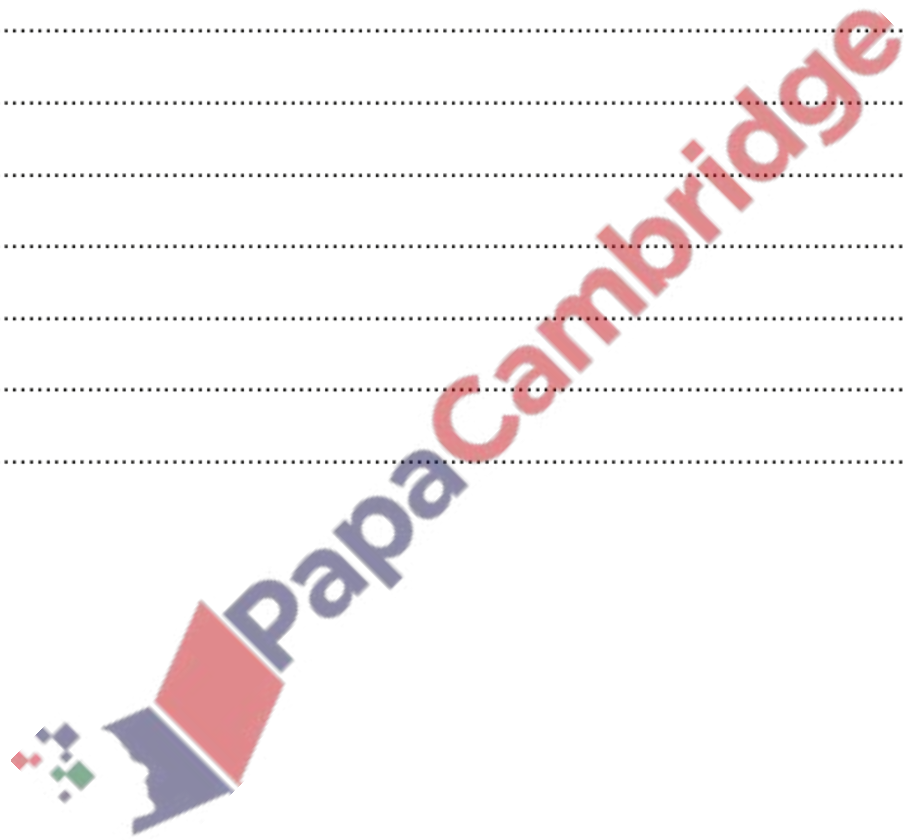
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There are many internal hardware devices in a typical personal computer.

(a) Tick the most accurate statement referring to hardware.

	✓
There are two types of hardware: application hardware and system hardware.	
Hardware consists of the programs used to direct the operation of a computer.	
Hardware is the collection of physical components that constitute a computer system.	
A device driver is an example of an item of hardware.	

[1]

(b) RAM is an example of an item of internal hardware.

Tick the most accurate statement referring to RAM.

	✓
A hard disk drive allows quicker access to data than RAM.	
RAM is portable and very easy to move from device to device.	
RAM stores active program data.	
Per unit of memory, RAM is far cheaper to buy than a hard disk drive.	

[1]

(c) (i) Describe the components of the central processing unit and describe their function.

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(ii) A computer contains a number of internal hardware components.

Describe the following:

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Sound card .....

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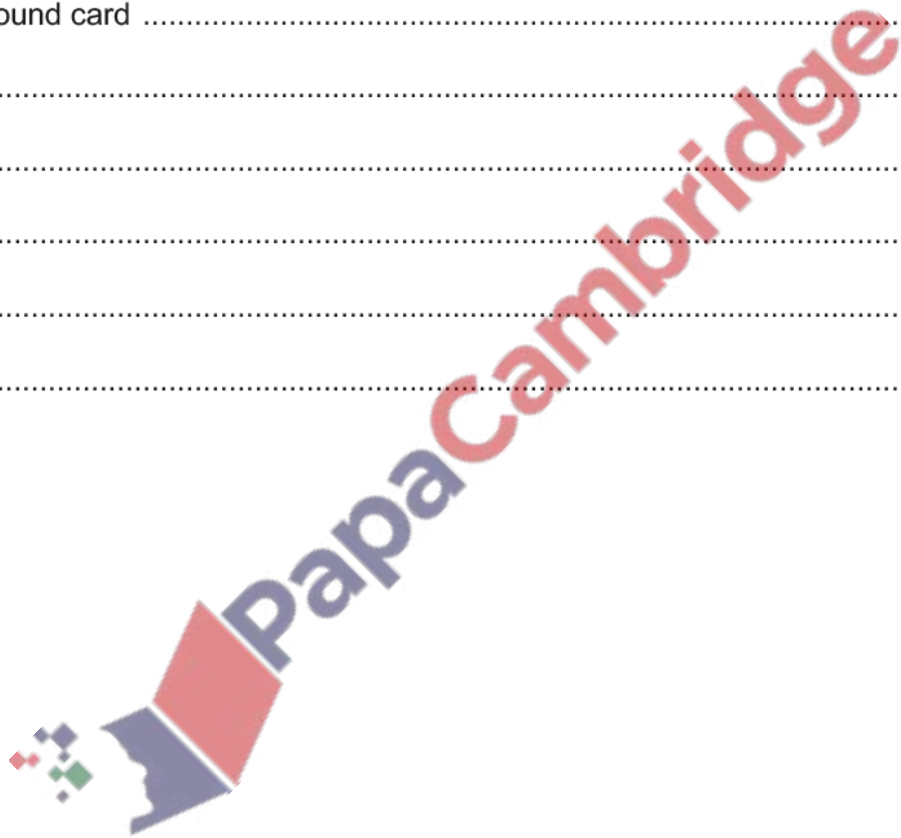
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A sports club secretary has entered data from a source document into a database on his own computer. The original document contains correct data but he made some errors when copying the data into the database. Membership number is text data type and Membership fee paid is currency.

Membership number	Date of birth	Membership fee paid (\$)
45237	13/04/1996	35
34859	09/12/1998	46
28695	12/11/1992	43
61892	01/02/2001	12
56123	27/06/1999	15

Source document

Membership number	Date of birth	Membership fee paid (\$)
45237	13/04/1996	35
3485	09/12/1998	46
28695	12/12/1992	43
61892	01/02/2001	12
56123	27/06/1999	5

Database

The **three** errors were:

15 has been copied as 5

34859 has been copied as 3485

12/11/1992 has been copied as 12/12/1992



(a) (i) Explain, in detail, why one of the errors could **only** have been detected using verification.

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(ii) Describe the most appropriate method of verification that could be used to trap this error.

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(b) For each of the other **two** errors, describe the most appropriate validation check which would have trapped the error.

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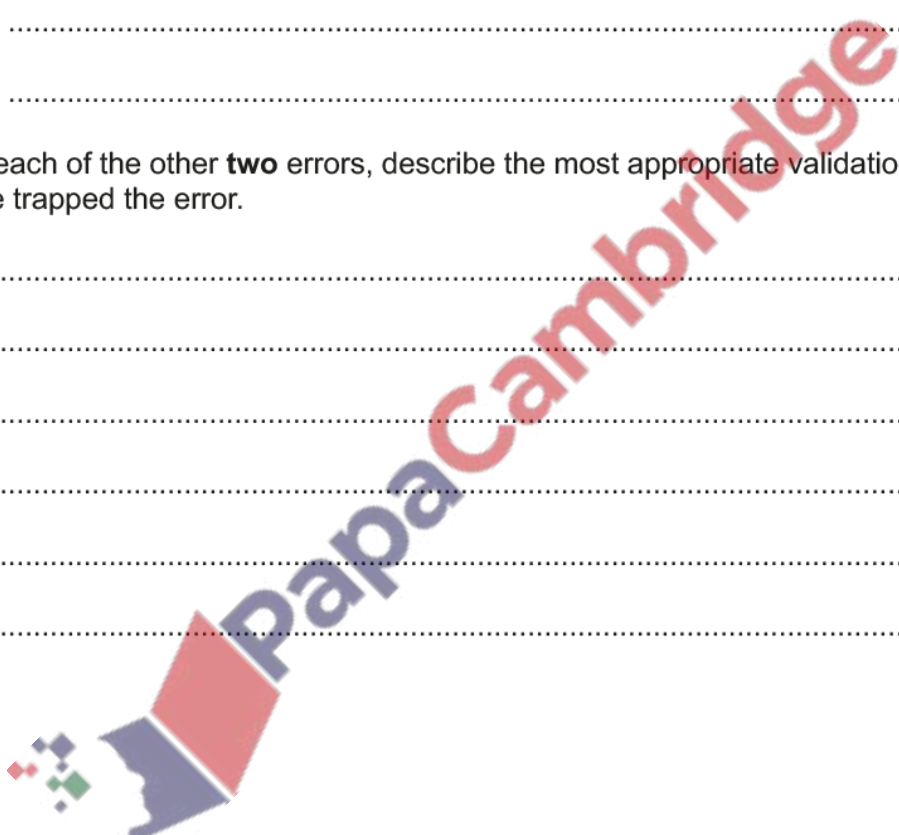
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12. Mar/2021/Paper\_32/No.28

Explain how the reporting feature of a management information system (MIS) helps an organisation in the running of its business.

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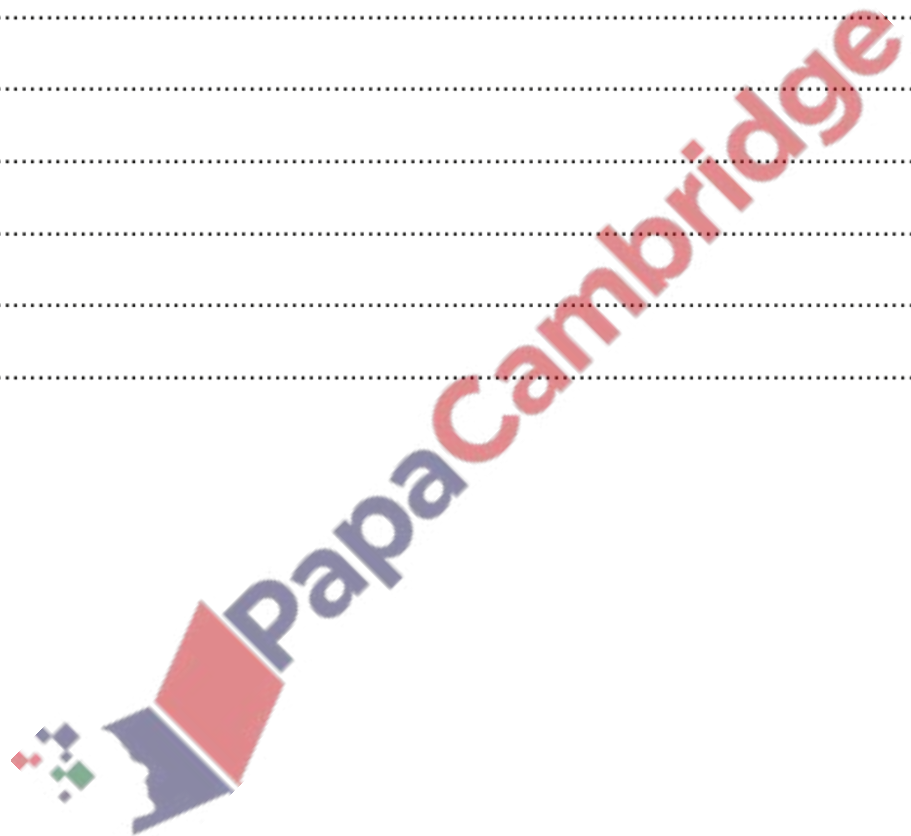
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The introduction of 5G cellular communication systems will provide increased bandwidth for users.

- (a) 5G cellular communication systems will enable video delivery to users to be more reliable.

Describe **two** other improvements that 5G will be able to provide.

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- (b) Describe **two** drawbacks of the introduction of 5G cellular communication systems.

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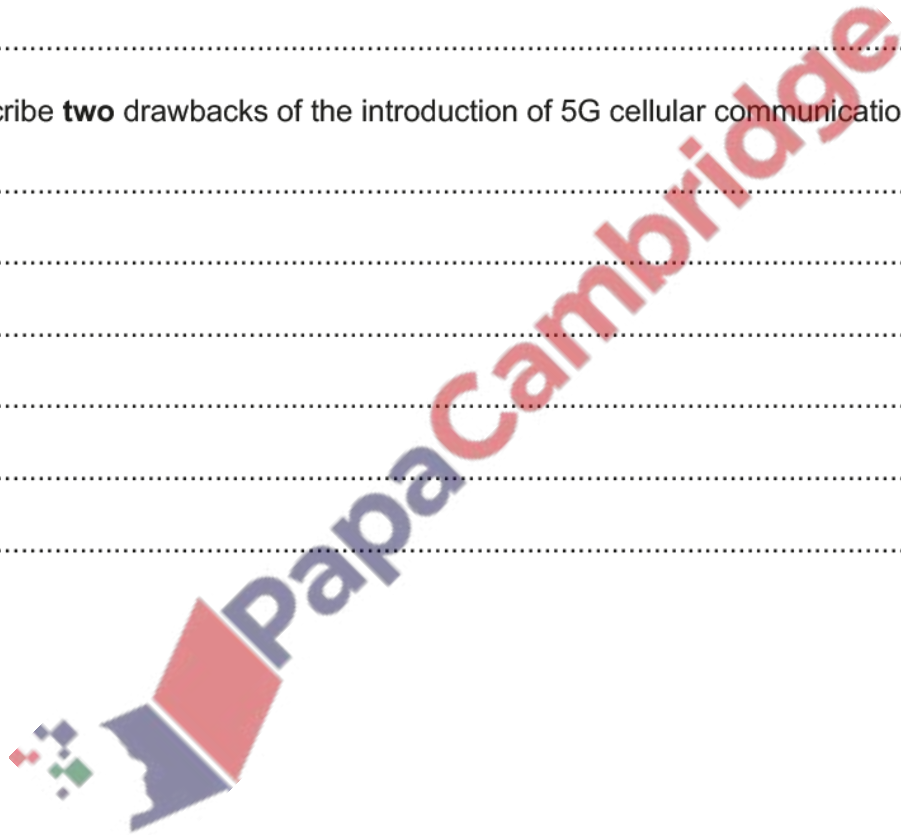
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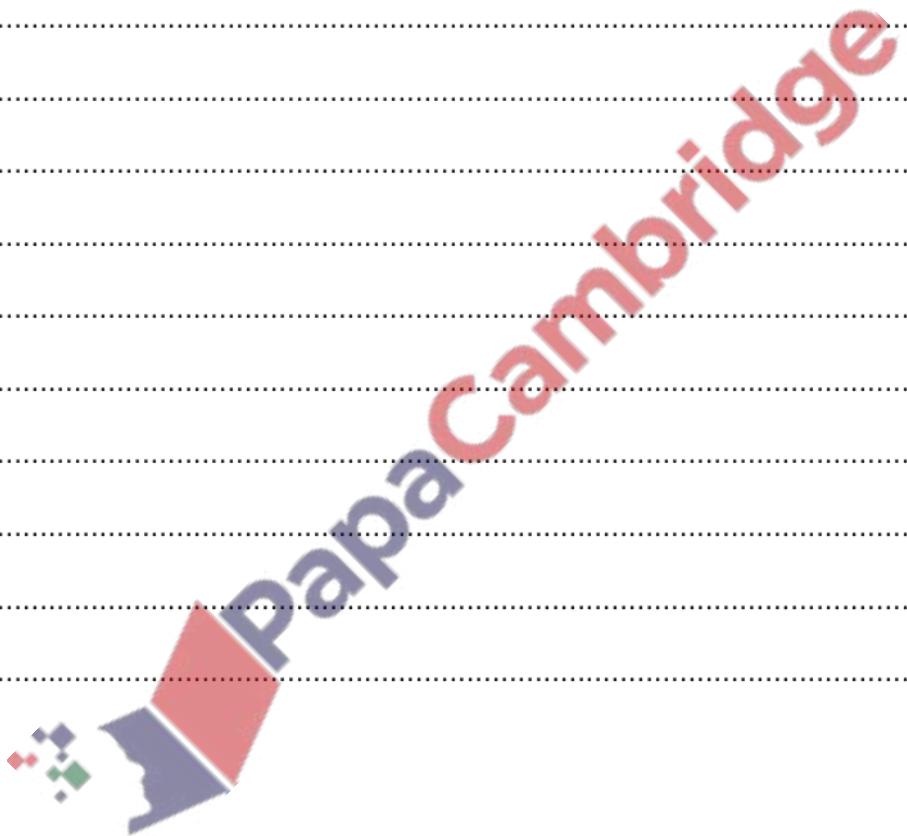


21. June/2021/Paper\_32/No.11

It is sometimes possible for people to gain unauthorised access to computer rooms. A school has a computer room with a number of standalone computers.

Evaluate, by weighing up the advantages and disadvantages, methods for protecting data stored on these computers.

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The introduction of 5G cellular communication systems will provide increased bandwidth for users.

- (a) 5G cellular communication systems will enable video delivery to users to be more reliable.

Describe **two** other improvements that 5G will be able to provide.

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- (b) Describe **two** drawbacks of the introduction of 5G cellular communication systems.

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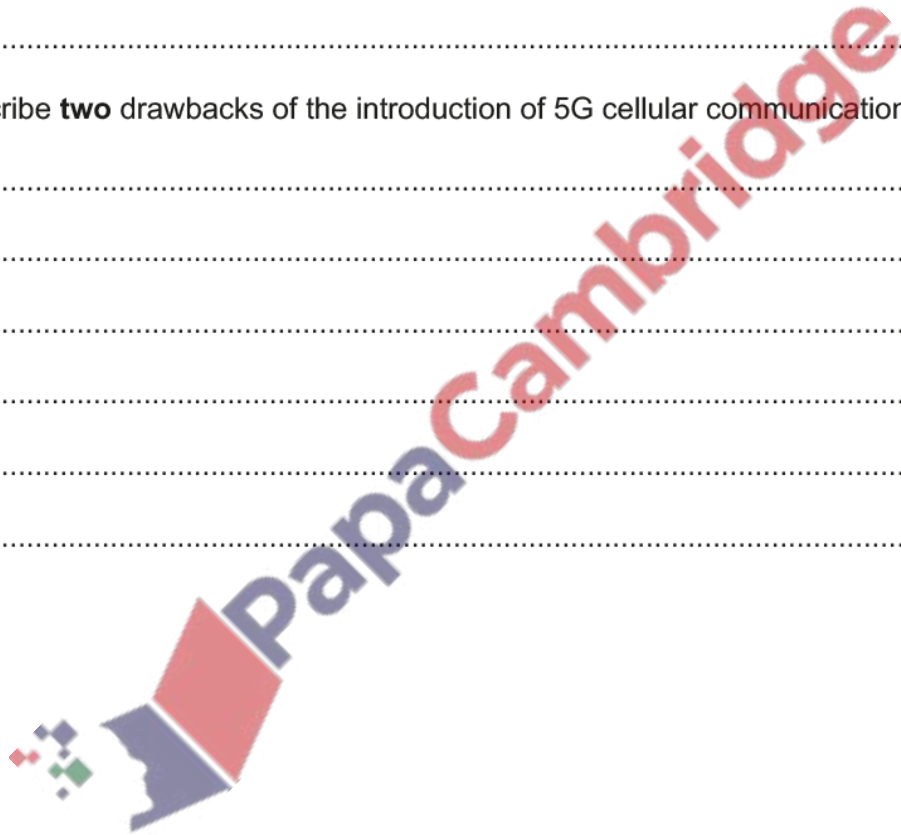
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25. June/2021/Paper\_33/No.11

Hubs and switches are networking devices.

Compare and contrast how these devices carry out their roles in a network.

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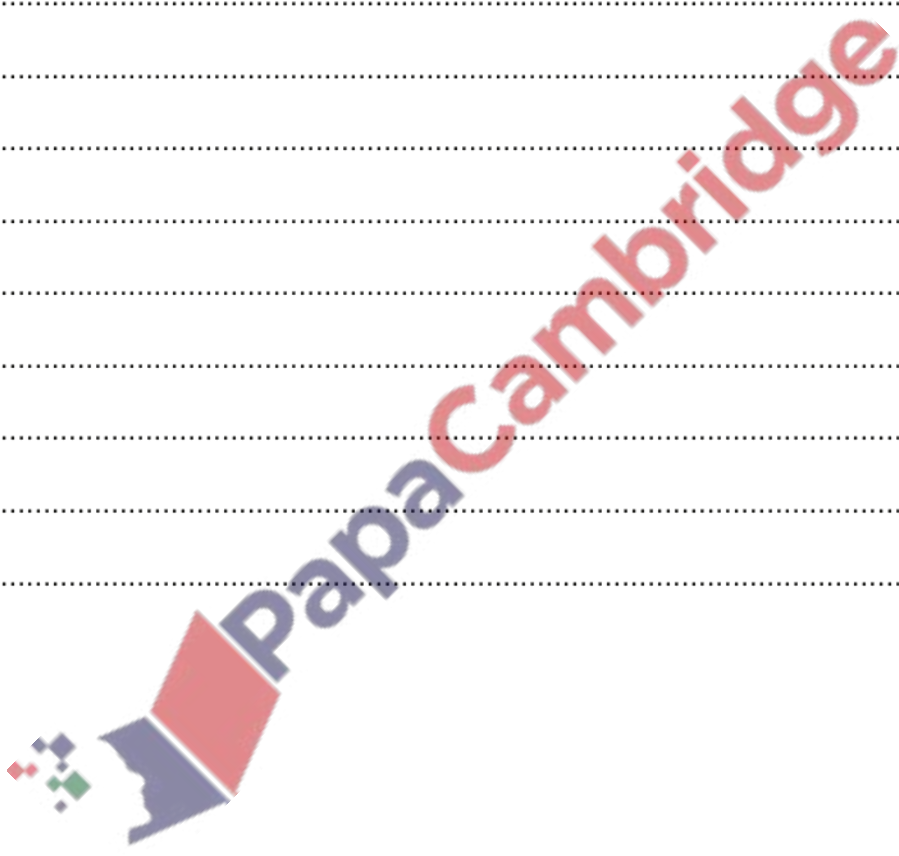
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26. Nov/2020/Paper\_32/No.2

Routers are components that send internet protocol (IP) packets through computer networks.

Describe how each of the following are used in the routing of the IP packets.

(a) static routing tables

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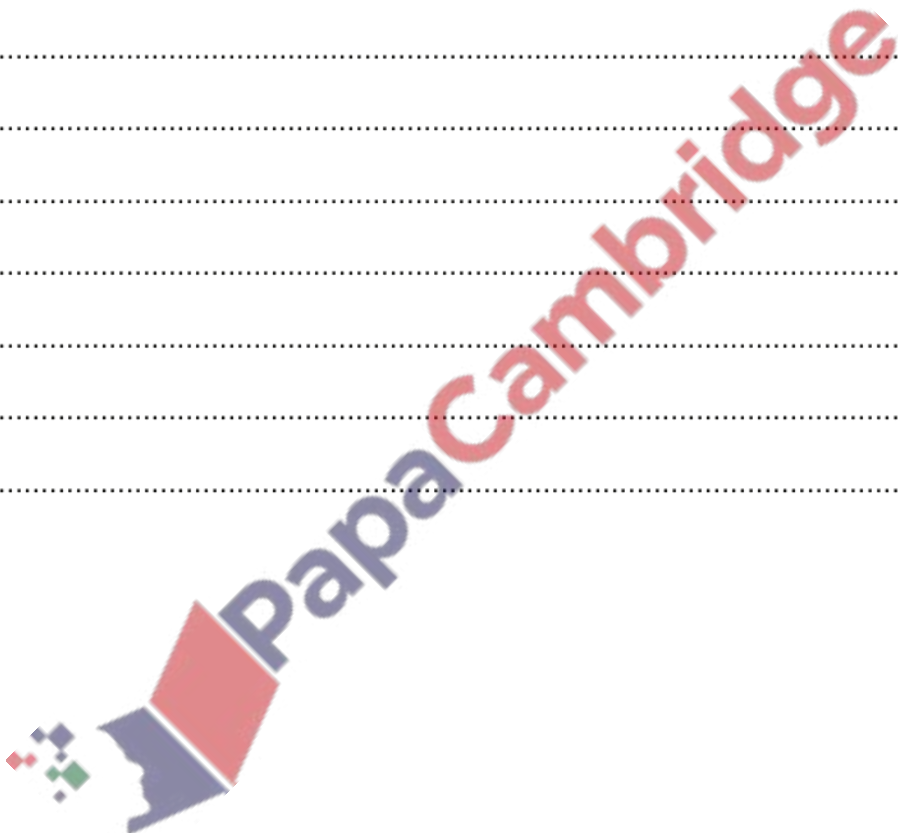
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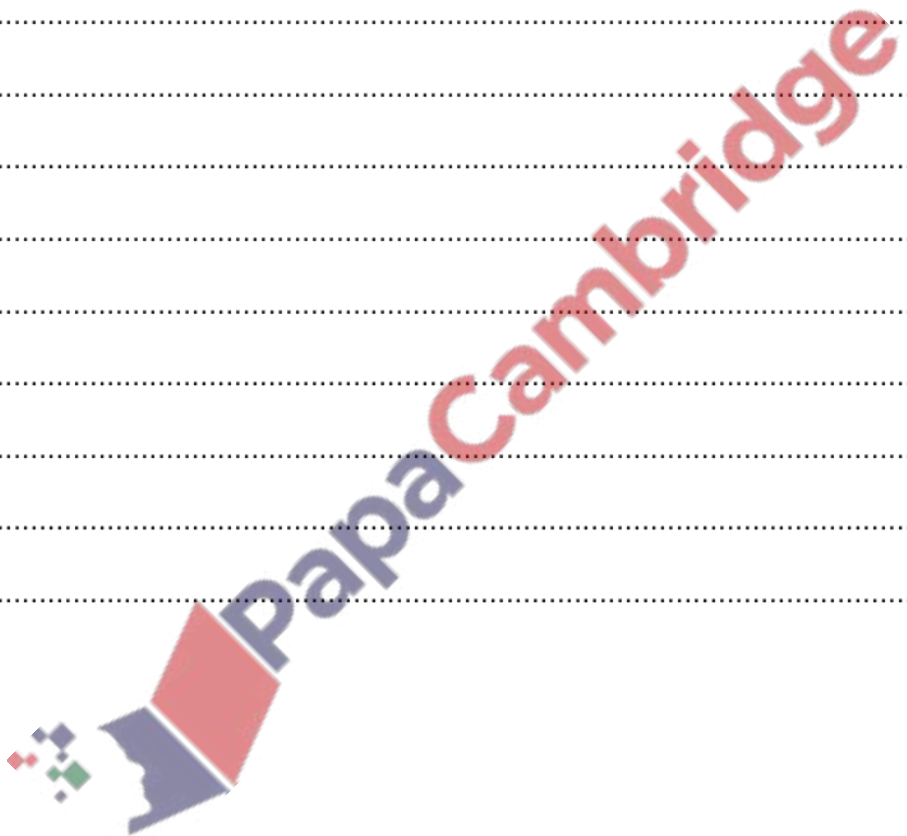




Companies are concerned that their employee files may be viewed and used by unauthorised people. A company uses access rights (permissions) to protect files stored on its network.

Explain how different access rights can be used to control access to files.

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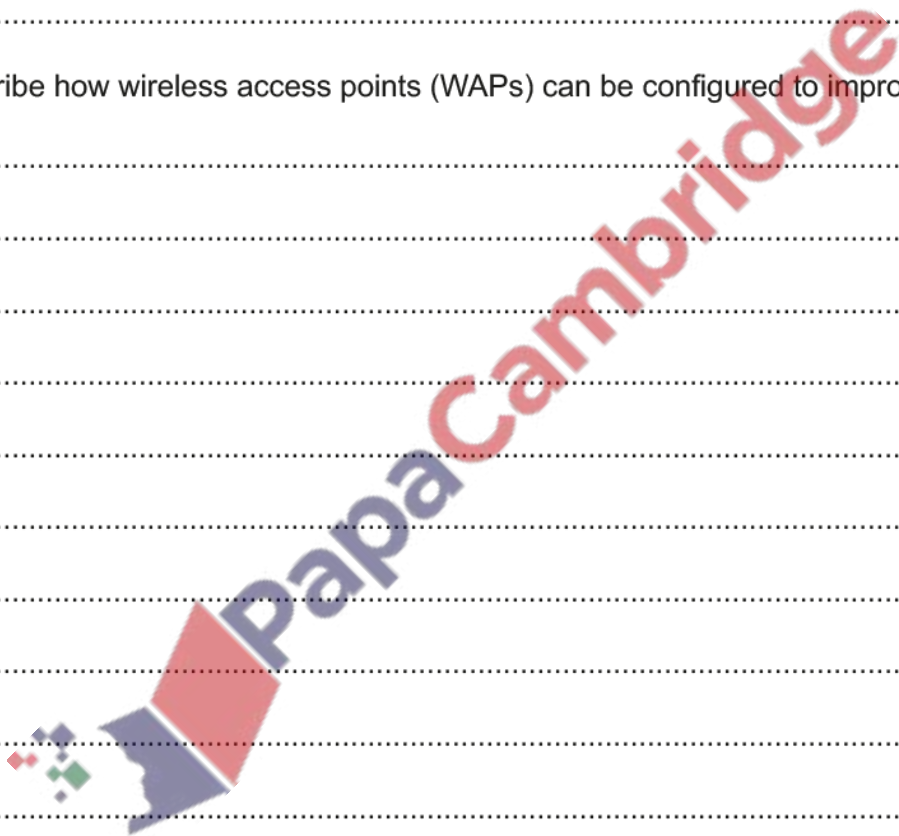
A company has a local area network (LAN) that can be accessed by its staff using their desktop and laptop computers as well as their smartphones.

(a) Describe the role of wireless access points (WAPs) in the network.

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(b) Describe how wireless access points (WAPs) can be configured to improve network security.

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Here is part of a spreadsheet showing the earnings of a selection of workers at a company.

E10    X    ✓    fx    =D10*VLOOKUP(B10,jobrate,3,0)						
	A	B	C	D	E	F
1					Standard rate per hour	
2			As	Assistant	\$12	
3			Se	Secretary	\$20	
4			Cl	Clerk	\$15	
5						
6	Worker ID	Job code	Job type	Hours worked this week	Wage paid this week	
7	42158P	As	Assistant	39	\$468	
8	63119M	Se	Secretary	40	\$800	
9	63214P	Se	Secretary	35	\$700	
10	89261N	Cl	Clerk	36	\$540	
11	97643M	As	Assistant	40	\$480	

(a) The formula in cell E10 contains a named range, shaded in the spreadsheet.

Describe, step by step, how the named range was created.

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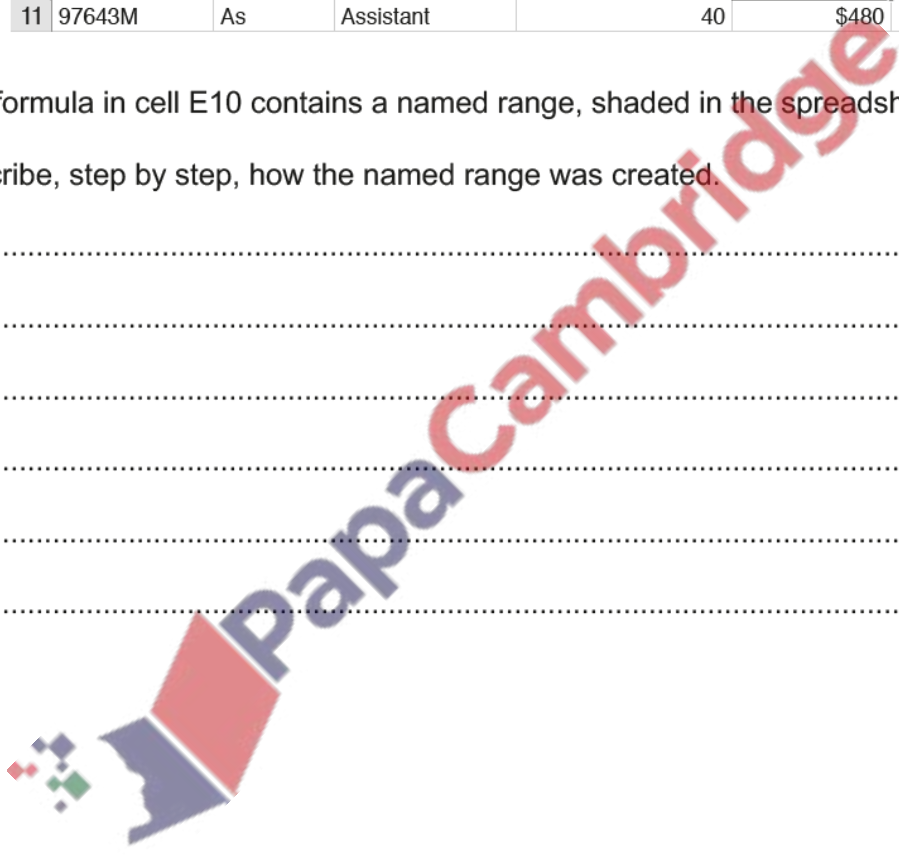
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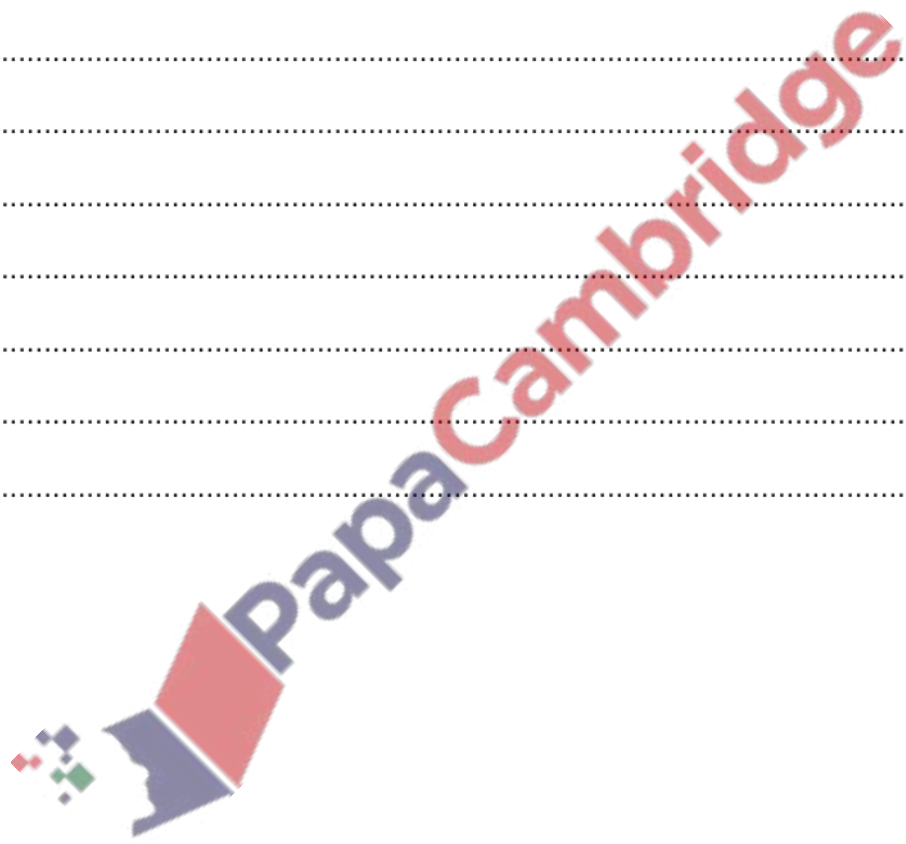


30. Mar/2020/Paper\_32/No.8

Describe the features of the encryption protocols TLS and SSL.

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31. June/2020/Paper\_31/No.4

A company is concerned that their personnel files may be viewed and used by unauthorised people. The company uses access rights (permissions) to protect their files when they are stored on their network and encryption when the files are sent to other companies by email.

- (a) Explain how the use of different access rights (permissions) applied to files can be used to control access to files.

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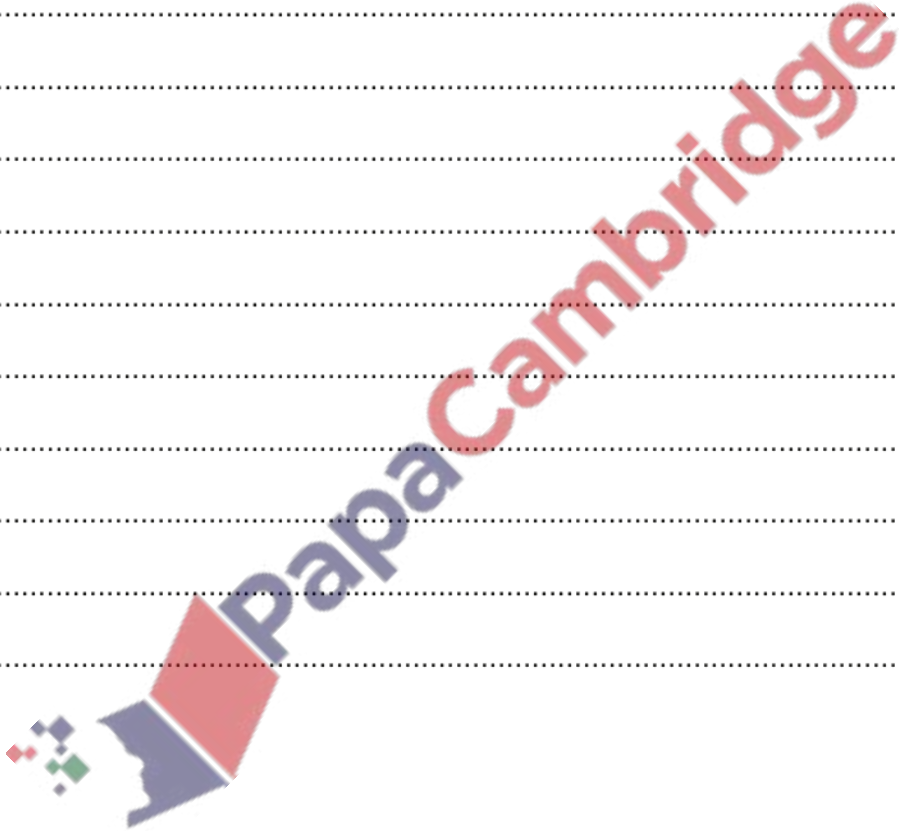
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Telecommunication companies are using fibre optic cables to supply internet services direct to people's homes because fibre optic cables are cheaper than copper cables.

(a) Explain the reasons, other than cost, why companies prefer to use fibre optic cabling.

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(b) Describe **three** disadvantages of using fibre optic cables.

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Describe the security issues that may arise when computers are networked.

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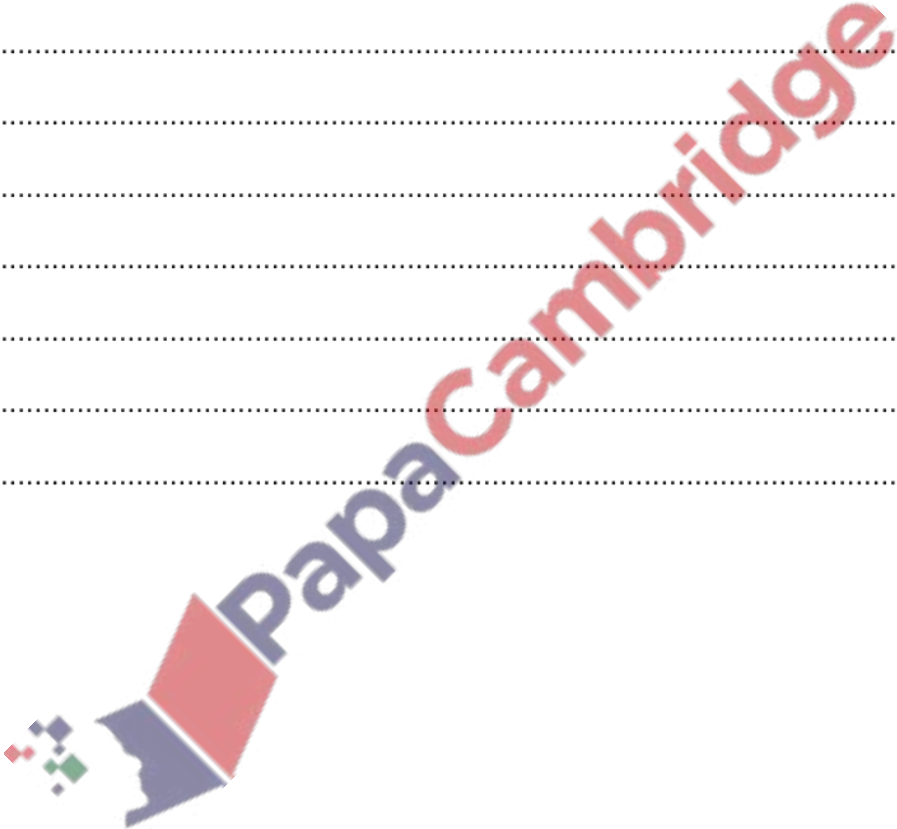
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**35.** June/2020/Paper\_32/No.1

A group of company managers are going to use a web-conference to discuss the documentation about a new product.

**(a)** The developers already have a desktop computer system.

Describe the additional computer hardware they need in order to participate in a web-conference.

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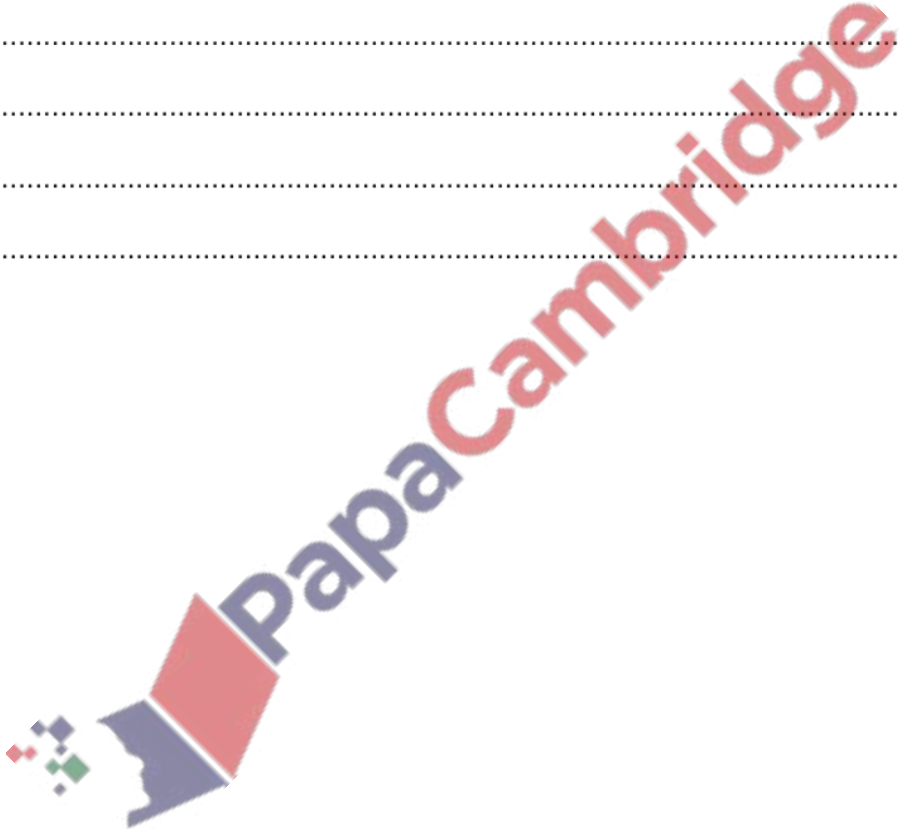
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(b) Describe the advantages of the different encryption methods for protecting files when sending them over public telecommunications systems.

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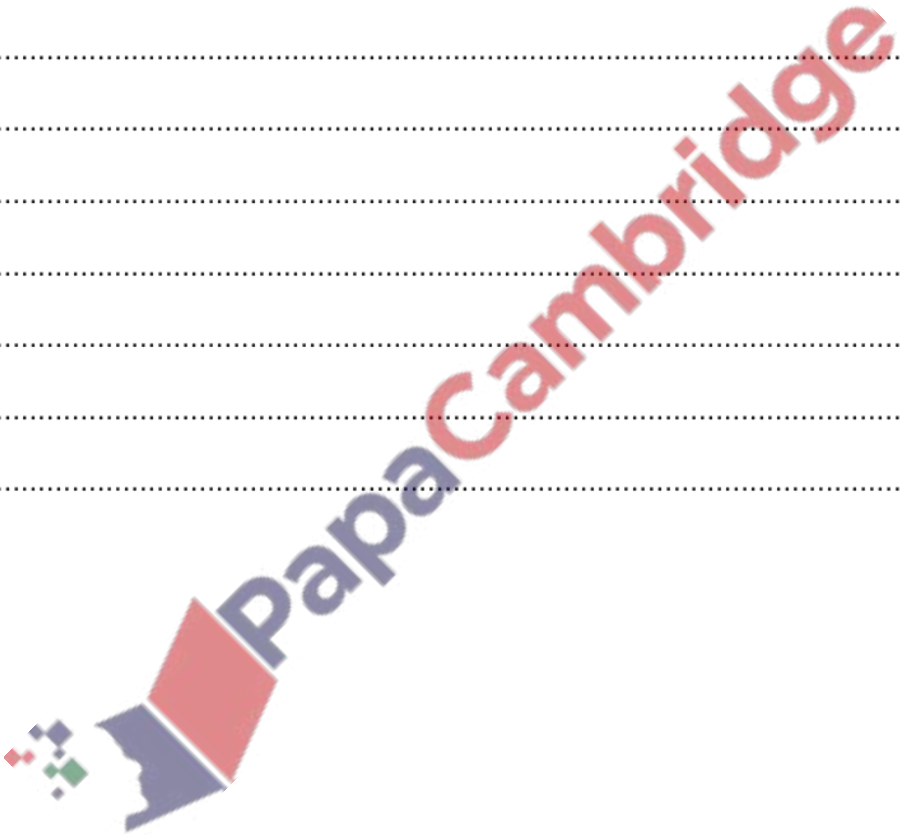
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37. June/2020/Paper\_33/No.6

Telecommunication companies are using fibre optic cables to supply internet services direct to people's homes because fibre optic cables are cheaper than copper cables.

(a) Explain the reasons, other than cost, why companies prefer to use fibre optic cabling.

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(b) Describe **three** disadvantages of using fibre optic cables.

1 .....

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3 .....

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