Communications technology – A2 9626

1.	Nov	2021	'Paper	31/	No.	2
1.	INUV	ZUZI/	rabei	21/	INU.	. Э

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.
	[6]

(b)	Describe how the use of BitTorrent for peer-to-peer networking can cause security issues to arise.
	[6]
	Palpa Palpa

2.	Nov/2021/Paper_31/No.5
	Discuss the advantages and disadvantages of using satellite communication systems to provide data transfer connections.
	[8]

Describe, in detail, the hardware that is required for web-conferencing.
[4
Describe the features of web-conferencing software.

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

3. Nov/2021/Paper_31/No.7

A photographer has used her smartphone to capture some images and wishes to transfer these images to her laptop for editing. She has decided to transfer the images using Bluetooth.
Describe the benefits and drawbacks of using Bluetooth to transfer the images.
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Co
[7]

4. Nov/2021/Paper_32/No.4

Airports and railway stations provide public WiFi access to the internet for their passengers. Using public WiFi may put the passengers' information at risk.
Explain how passengers can try to protect their information from security issues when using public WiFi.
[8]
[6]

5. Nov/2021/Paper_32/No.7

Hetwork.
Describe how a network interface card carries out its role.
[8]

The role of a network interface card (NIC) is to enable devices to communicate over a computer

6. Nov/2021/Paper_32/No.11

	er-to-peer networking can account for a large percentage of all internet traffic. It is often used to sfer large files.
(a)	Describe how peer-to-peer networking uses BitTorrent to transfer large data files between several users.
	[6]

7. Nov/2021/Paper_33/No.3

(b)	Describe how the use of BitTorrent for peer-to-peer networking can cause security issues to arise.
	[6]
	Palpa Palpa

Nov/2021/Faper_33/No.3
Discuss the advantages and disadvantages of using satellite communication systems to provide data transfer connections.
[8]

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.	
	[4]	
	APalPa Califi.	

9. Nov/2021/Paper_33/No.7

(b)	Describe the features of web-conferencing software.
	[6]
	Palpa Palpa

10.	Mar	/2021	/Paper	_32/No.1	
	,	,			

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

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

	1
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.

(ii)	A computer contains a number of internal hardware components.
	Describe the following:
	Motherboard
	Sound card
	[4]

11. Mar/2021/Paper_32/No.4

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

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

Source document

Database

The **three** errors were:

Palpacantionio 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	
	(ii)	Describe the most appropriate method of verification that could be used to trap this err	
	(,		
/b\	For	each of the other two errors, describe the most enprepriets validation check which we	
(b)	have	each of the other two errors, describe the most approp <mark>riate val</mark> idation check which wo e trapped the error.	JIG
	1		
	2		
			 [2]
		T T	

12.

Satellite communication systems can be used to provide internet access to users in areas of the world where other methods of providing internet access are not possible.		
Describe how satellite communication systems provide internet access to users.		
F03		
[8]		

13. June/2021/Paper_31/No.2

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.
	[2]
(b)	Describe two drawbacks of the introduction of 5G cellular communication systems.
	<u>~</u>
	[2]
	P.O.

14. June/2021/Paper_31/No.6

15.	June/2021/Paper_31/No.8 Describe how a blog enables social networking to take place.
	[6
	Pale Control of the c

16. June/2021/Paper_31/No.11 Hubs and switches are networking devices.

Trabe and evitorios are networking devices.
Compare and contrast how these devices carry out their roles in a network.
[61
[6]

17. June/2021/Paper_32/No.1

Describe the limitations of using wireless access points (WAPs) to connect portable computers to a cabled network.
(3)
[6]

18.	June/2021/Paper_32/No.4
	Evaluate, by weighing up the advantages and disadvantages, the use of encryption to protect confidential data.
	C
	[6]
	Pak

19. June/2021/Paper_32/No.5
Describe the benefits and drawbacks of using electronic funds transfer systems in eBusiness.
[6
Pale

Describe the role and operation of a network switch.

8]

20. June/2021/Paper_32/No.6 Switches are devices used in computer networks.

21. June/2021/Paper_32/No.11

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.

It is sometimes possible for people to gain unauthorised access to computer rooms. A school has

[6]

Satellite communication systems can be used to provide internet access to users in areas of the world where other methods of providing internet access are not possible.
Describe how satellite communication systems provide internet access to users.
2

22. June/2021/Paper_33/No.2

23. June/2021/Paper_33/No.6 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. (b) Describe two drawbacks of the introduction of 5G cellular communication systems.

24.	June/2021/Paper_33/No.8
	Describe how a blog enables social networking to take place.
	[6

Hubs and switches are networking devices.
Compare and contrast how these devices carry out their roles in a network.
<u> </u>

25. June/2021/Paper_33/No.11

Rou	iters are components that send internet protocol (IP) packets through computer networks.
Des	cribe how each of the following are used in the routing of the IP packets.
(a)	static routing tables
	[5]

26. Nov/2020/Paper_32/No.2

(b)	dynamic routing tables
	Palpa Call

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.
. 69
[6]

27. Nov/2020/Paper_33/No.2

28. Nov/2020/Paper_32/No.12 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. (b) Describe how wireless access points (WAPs) can be configured to improve network security.

29. Mar/2020/Paper_32/No.7

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

E	E10						
_4	А	В	С	D	Е	F	
1				Sta	ındard rate per h	our	
2			As	Assistant	\$12		
3			Se	Secretary	\$20		
4			CI	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	CI	Clerk	36	\$540		
11	97643M	As	Assistant	40	\$480		

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

[2]
[2]

(b)	Explain, step by step, what the formula in cell E10 does.
	Pala Carrillo III

(c)	Give two reasons why a named range is used.
	1
	2
	[2
(d)	Explain, step by step, how to perform a filter on secretaries earning more than \$750.
	10.0
	[6

Here is the same spreadsheet showing the formula in cell C7, VLOOKUP(B7,C\$2:D\$4,2,0).

C	7 -	X V	fx =VLOOK	(UP(B7,C\$2:D\$4,2,0)		
	Α	В	С	D	E	F
1				Sta	andard rate per ho	our
2			As	Assistant	\$12	
3			Se	Secretary \$20		
4			CI	Clerk \$15		
5						
6	Worker ID	Job code	Job type	Hours worked this week	Wage paid this week	
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10	89261N	CI	Clerk	36	\$540	
11	97643M	As	Assistant	40	\$480	

(e)	By explaining what each part of the formula does, describe how it displays 'Assistant' in C7.
	70
	F.4

Mar/2020/Paper_32/No.8 Describe the features of the encryption protocols TLS and SSL.
[6
Pale.

30.

31.	June	/2020/Paper_31/No.4
	peo	ompany is concerned that their personnel files may be viewed and used by unauthorised ple. The company uses access rights (permissions) to protect their files when they are stored heir 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.
		.07

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

32. June/2020/Paper_31/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.
	[4
b)	Describe three disadvantages of using fibre optic cables.
	1
	2

	3

33.	June/2020/Paper_31/No.9	
	Describe the security issues that may arise when computers are networked.	
		16
	Palo.	. ĮO

A company has a local area network (LAN) that can be accessed by its staff using their desktop computers, laptops and mobile devices. The desktop computers use a wired connection but the laptops and mobile devices connect via wireless access points (WAPs).
Describe the drawbacks of using WAPs to access the network.
<u> </u>
**

34. June/2020/Paper_32/No.1

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 web-confe		computer	hardware	they	need	in	order	to	participate	in	а
	 				•.(•••
				40							
••		203	Car								

(b)	Describe, in detail, how a web-conference can be used to discuss their visual materials and documents.
	**

	[8]

36. June/2020/Paper_32/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.
	[6]

(b)	Describe the advantages of the different encryption methods for protecting files when sending them over public telecommunications systems.
	[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.	
<i>(</i> 1.)	[4]	
(b)	Describe three disadvantages of using fibre optic cables.	
	1	
	2	
	3	
	J	

37. June/2020/Paper_33/No.6

[3]

38.	June/2020/Paper_33/No.9
	Describe the security issues that may arise when computers are networked.
	[6]
	Pale Comment of the c