Name:
IAL IT Topic 6 Questions
Date:
Time:
Total marks available:
Total marks achieved:

Questions

Q1.	
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A company that sells flowers has replaced its paper-based transaction system with an IT system.

The company's change from a paper-based system to an IT system has an environmental impact.

(i) Explain one positive environmental impact.	
	(2)
(ii) Explain one negative environmental impact.	
	(2)
(Total for question = 4 ma	rks)

Q2.

Some questions must be answered with a cross in a box (\boxtimes). If you change your mind about an answer, put a line through the box (\boxtimes) and then mark your new answer with a cross (\boxtimes).

A company that sells flowers has replaced its paper-based transaction system with an IT system.

When flowers are delivered to a customer, the driver records the event on a tablet.

On return to the company's premises the delivery records are transferred from the tablet to the company's IT system.

(i) Identify the method that will transfer the records in the shortest time, **once a connection** has been made.

/			
X	A	Bluetooth	
×	В	USB C cable	
×	C	Ethernet cable	
X	D	Micro USB cable	
(ii)	The	e tablet is location aware.	
Exp	olain	how the tablet 'knows' when it is on company premises.	
			(2)
		(Total for question = 3 mar	ks)

Q3.

(1)

Sanjeev writes short stories for magazines. He does not have a permanent position and only gets paid when a story is published. Some stories are commissioned by a magazine's editor, others are submitted in the hope that they will be accepted and published.

Sanjeev researches material for his stories by using the internet. He also has an active social media presence for his work and personal life.

By using the internet, Sanjeev has generated both an active and a passive digital footprint.

Evaluate the advantages and disadvantages for Sanjeev of the digital footprints that he has generated.

You should consider:

- the impact on Sanjeev's working and personal life
- how Sanjeev should manage his footprints going forward.

(Total for question = 12 marks)

Q4.

A multinational travel company has produced a smartphone app.

The app gives users information about places such as tourist attractions, restaurants, and local services near to their current location.

It uses location awareness to know the present location of the user.

A pressure group has claimed that the app invades the user's privacy by using location awareness.

Evaluate the balance between giving information **to users** and collecting information **about users**.

Your evaluation should include:

- an outline of location awareness technologies that may be used by the app
- the types of information that could be provided to the user by allowing the app to use location awareness
- moral and/or ethical issues with using location awareness in this way
- your conclusion.

(12)

(Total for question = 12 marks)

Q5.

In the country of Varma Loko, main roads often run through small villages. The Transport Ministry has installed a traffic management system in each village.

One crossroads in each village has a set of traffic lights controlling the main road and the side roads. The system is controlled by a computer.

These are the system requirements.

• The default setting is for the lights on the main road to be green (go) and the lights on the

side roads to be red (stop).

• Proximity and speed sensors are used to detect the two conditions for when the lights will change.

The conditions are:

- when a vehicle stops at a red light on the side road
- when a vehicle enters the village on a main road over the speed limit.
- An emergency vehicle can send a radio signal to change the lights.
- The lights reset to the default setting after a set time.
- If a vehicle moves past a red light on any road, a digital camera takes a photo and uploads it to the local police headquarters via the internet.

The Transport Ministry wants to photograph every vehicle that passes through the crossroad. A Civil Liberties Group opposes the idea on the grounds that the system might be abused by the government.

(i) Explain one reason the government could use to justify photographing every vehicle.	
	(2)
(ii) Describe one way in which the government might abuse this system.	
	(2)

(Total for question = 4 marks)

studies. The online community stores personal data about its members online and must obey data protection laws. (i) Describe what is meant by **personal data**. (2) (ii) Members can change some of their personal data when logged in to their account. Give **one** way in which a member could protect their account from unauthorised access. **(1)** (iii) Explain **one** way that the people who run the online community could protect members' data from unauthorised access. (2)

(Total for question = 5 marks)

Alex is a university student, studying biology. He has joined an online community to help his

Q7.

ach customer can generate many transactions every day.	
he bank operates online only.	
tate two factors that prevent some people from using online banking services.	
	(2)
(Total for question = 2 ma	rks)
98.	

An online-only bank needs to store large amounts of data about its customers.

A scrap metal company wants to extend its business into the disposal of IT equipment.

Some of the company's directors think they make most profit by shredding everything and using a furnace to extract the metals that are then sold. This is the shred and smelt system.

Others believe that they will make more profit by adopting a reuse and recycle system that involves selling items and/or parts second hand.

Evaluate the advantages and disadvantages of a reuse and recycle system compared to the shred and smelt system.

Your evaluation should include:

- environmental considerations
- data security implications
- your conclusion.

(Total for question = 12 marks)

Q9.

A government is planning to develop a new beach resort.

The resort will be built near an existing fishing village. It will have accommodation for 3000 people. The fishing village has a population of 500.

The area has year-round sunshine but limited water resources. The village residents are concerned about damage to their environment, especially pollution of inshore fishing grounds.

The government claims that smart features in the resort will prevent any environmental damage.

Evaluate how the use of information technology could have a positive impact on environmental monitoring and efficient use of resources in this context.

Your evaluation should include:

- · environmental monitoring
- efficient use of resources
- your conclusion about the government's claim.

(Total for question = 12 marks)

Q10.

Sarah has purchased a smart TV. The features of the TV allow her to browse the internet, deal with email and use interactive media.

Digital devices, such as Sarah's TV, have features to assist those with disabilities.

(i) Describe **two** features of a smart TV's user interface that assist people with a visual impairment.

	(4)
1	

ii) Explain one moral/ethical reason why manufacturers of digital devices include accessibility eatures in their products.
(3)

(Total for question = 7 marks)