**Edexcel
Principal Learning**

Centre Number

Candidate Number

Information Technology

**Level 2
Unit 1: The Potential of Technology**

Tuesday 25 May 2010 – Afternoon
Time: 1 hour

Paper Reference
IT201/01

You do not need any other materials.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.

Information

- The total mark for this paper is 60.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ▶

ALL questions must be answered with a cross in a box ⊠. If you change your mind about an answer, put a line through the box ⊠ and then mark your new answer with a cross ⊠.

1 (a) ATMs are a convenient way for customers to withdraw cash from their bank accounts with their debit card.

Which **one** of the following correctly identifies two places where the electronic data can be stored on a debit card?

(1)

A	Hologram and magnetic stripe.	⊠
B	Micro chip and printed account number.	⊠
C	Micro chip and magnetic stripe.	⊠
D	Hologram and printed account number.	⊠

(b) In order to access the system customers must enter their:

(1)

A	password.	⊠
B	name.	⊠
C	account number.	⊠
D	PIN.	⊠

(c) The information is transmitted electronically from the ATM to the bank's central computer via:

(1)

A	a Wide Area Network.	⊠
B	the internet.	⊠
C	a mobile technology system.	⊠
D	a Local Area Network.	⊠

(d) The bank must ensure that the electronic data is transmitted securely.

Identify **one** method used to secure the data.

(1)

A	Decoding.	⊠
B	Encryption.	⊠
C	Translation.	⊠
D	Interpreting.	⊠

(e) When using the ATM a customer should take steps to minimise the risk of theft.

Which **one** of the following provides sensible advice for an ATM user?

(1)

A	Do not allow others to see you enter your details and only accept help from strangers if you are having difficulties.	☒
B	If there are signs of tampering with the ATM complete your transaction and then inform the bank.	☒
C	Do not allow others to see you enter your details and never accept help from strangers if you are having difficulties.	☒
D	If there are signs of tampering with the ATM complete your transaction and then warn others not to use the ATM.	☒

(f) The widespread use of online banking has had an impact on banks, their employees and their customers.

Here are some statements about the impact of online banking.
Four of these statements are correct.
Put a cross next to each of the correct statements.

(4)

A	The increased use of online banking has reduced job security for branch employees.	☒
B	Online banking has enabled banks to reduce costs as less personal data needs to be stored.	☒
C	All individuals are able to take advantage of online banking facilities.	☒
D	Online banking has enabled banks to increase profits by increasing charges to customers.	☒
E	Customers are able to take advantage of online banking using both wired and wireless networks.	☒
F	The security of customers' personal data has improved with a move to online banking.	☒
G	Online banking has enabled banks to reduce costs by reducing the number of high street branches.	☒
H	Banks that provide online facilities have access to a wider customer base.	☒

(Total for Question 1 = 9 marks)

2 Many supermarkets operate loyalty card schemes.

(a) Which **one** of the following statements is correct?

Loyalty card schemes:

(1)

A	reduce the time customers spend queuing.	☒
B	cannot be used by customers paying with cash.	☒
C	increase the sales of 'own brand' goods.	☒
D	can only be used as part of an EPOS system.	☒

(b) Supermarkets use loyalty card schemes to collect and analyse:

(1)

A	sales data for each branch of the supermarket.	☒
B	stock levels for individual items.	☒
C	purchases made by individual customers.	☒
D	stock levels for each branch of the supermarket.	☒

(c) EFTPOS systems are widely used in supermarkets.

Which device is used to read the electronic data from a customer's payment card?

(1)

A	Barcode reader.	☒
B	Optical character reader.	☒
C	Chip and PIN reader.	☒
D	Optical mark reader.	☒

(d) The **main** advantage of an EFTPOS system is that:

(1)

A	the supermarket is able to monitor the goods that a customer purchases.	☒
B	funds are automatically transferred from the customer's bank account to the supermarket's bank account.	☒
C	the supermarket is able to monitor the performance of checkout operators.	☒
D	funds are automatically transferred from the supermarket's bank account to the customer's bank account.	☒

(e) EPOS terminals in a supermarket are linked to a central computer in the store, which is in turn linked to a computer in the supermarket's head office.

The name given to the head office computer is a:

(1)

A	router.	☒
B	standalone.	☒
C	mainframe.	☒
D	PC.	☒

(f) EPOS systems play a major role in the success of supermarkets.

Identify **four** ways in which EPOS systems contribute to the success of supermarkets.

(4)

A	Automatic collection of data reduces the need to monitor the time customers spend queuing.	☒
B	Automatic collection of sales data enables supermarkets to operate a just-in-time method of stock control.	☒
C	Labour costs are increased as more checkout staff are needed.	☒
D	Overheads are reduced as EPOS systems are cheap to install and maintain.	☒
E	Analysis of sales data enables supermarkets to predict buying patterns.	☒
F	Overheads are reduced as less storage space is needed.	☒
G	Automatic collection of sales data improves the accuracy of the data.	☒
H	EPOS systems lead to increased sales as communication with customers is improved.	☒

(g) Computer processors are used to control the temperature of the freezers and chillers in the supermarket.

Which device would be used to monitor the temperature of each freezer?

(1)

A	Router.	☒
B	Reader.	☒
C	Scanner.	☒
D	Sensor.	☒

(Total for Question 2 = 10 marks)

3 Crazy Clothing is a company that sells children's clothing via its website.

(a) Identify **four** ways in which the website can be used to contribute to the success of Crazy Clothing.

(4)

A	Income can be generated from advertisements placed by other organisations.	☒
B	Communication of information about the goods and services offered can be improved.	☒
C	Profits can be increased by charging higher prices for goods.	☒
D	Income is generated each time a customer looks at a page on the website.	☒
E	Communication of information between the company and its suppliers can be improved.	☒
F	Customer feedback can be easily collected leading to improvements in the quality of the services offered.	☒
G	More sales staff can be employed to deal with the increased number of orders.	☒
H	Income can be generated by attracting customers from a wider area.	☒

(b) Customers ordering goods online must make sure they prevent unauthorised access to data on their PC.

Identify the software they should use to stop this happening.

(1)

A	Virus-checker.	☒
B	Email filter.	☒
C	Internet filter.	☒
D	Firewall.	☒

(c) Employees at Crazy Clothing are encouraged to change their passwords each month.

Identify the legislation relating to unauthorised access to systems.

(1)

A	Data Protection Act.	☒
B	Computer Protection Act.	☒
C	Computer Misuse Act.	☒
D	Copyright, Designs and Patents Act.	☒

(d) Crazy Clothing can track deliveries to customers.

Parcels are labelled with customer details and a barcode.

Which **one** of the following identifies the data that must be related to the barcode to allow the parcels to be tracked?

(1)

A	Customer identity number and order identity number.	☒
B	Customer identity number and date of delivery.	☒
C	Order identity number and cost of goods.	☒
D	Order identity number and date of delivery.	☒

(e) **One** of the major benefits to Crazy Clothing of using item tracking is:

(1)

A	an improvement in customer services.	☒
B	a reduction in delivery charges.	☒
C	a reduction in delivery times.	☒
D	an increase in delivery charges.	☒

(f) The delivery drivers use GPS to help them get to customer houses.

The basic components used in GPS are a:

(1)

A	GPS transmitter, a communications network and geographic maps.	☒
B	GPS receiver, a communications network and geographic maps.	☒
C	GPS receiver, the internet and geographic maps.	☒
D	GPS transmitter, GPS receiver and the internet.	☒

(Total for Question 3 = 9 marks)

4 Cinema View is a cinema complex. Customers can buy tickets using a variety of methods.

Cinema View has a website which allows customers to reserve their tickets online.

(a) Identify **one** benefit for Cinema View of customers reserving tickets online.

(1)

A	Reduced costs as less staff are needed.	☒
B	Increased prices due to increased demand for tickets.	☒
C	Increased numbers of staff to deal with enquiries.	☒
D	Reduced costs as less equipment is needed.	☒

(b) Customers are able to collect their reserved tickets using self-service machines.

What information **must** a customer enter in order to collect their tickets?

(1)

A	First name and surname.	☒
B	Reservation number.	☒
C	Reservation date.	☒
D	Seat number.	☒

(c) Identify the components that must be part of the self-service ticket machines.

(1)

A	Sensor, keypad and printer.	☒
B	Monitor, keypad and printer.	☒
C	Sensor, keypad and touch screen.	☒
D	Monitor, keypad and touch screen.	☒

(d) The self-service machines are part of a Local Area Network (LAN) in the complex.

Which **one** of the following statements is correct?

(1)

A	Data can be transferred over a LAN using both wired and wireless technologies.	☒
B	LAN systems are used to connect workstations across large geographical areas.	☒
C	Data is always transferred over a LAN using satellite signals.	☒
D	LAN systems use equipment that is always cheap to install.	☒

(e) A LAN can be connected to the internet.

Identify the device that would be needed to connect a LAN to the internet.

(1)

A	Server.	☒
B	Hard drive.	☒
C	Router.	☒
D	Controller.	☒

(f) Cinema View issues an online newsletter once a month with information about films and actors.

The **main** reason for issuing the newsletter is to:

(1)

A	increase revenue by improving communication with staff.	☒
B	reduce costs by improving staff satisfaction.	☒
C	reduce prices by improving communication with customers.	☒
D	increase revenue by attracting more customers.	☒

(g) Buying cinema tickets online is one of the many benefits that individuals have gained from the introduction of new technologies.

Identify **four** other benefits that have resulted from the introduction of new technologies.

(4)

A	All individuals have been given the chance to change to more flexible working patterns.	☒
B	Individuals are able to access global information allowing them to make more reasoned choices.	☒
C	Service providers no longer need to store large amounts of data about their customers.	☒
D	Some individuals have been given the opportunity to work from home.	☒
E	Many individuals have been given the opportunity to develop a wide range of new skills.	☒
F	Individuals are able to communicate globally with others who have similar views.	☒
G	Individuals are always fully aware of the data that organisations hold about them.	☒
H	All data held about individuals by service providers is inaccessible to others.	☒

(Total for Question 4 = 10 marks)

Turn over ▶

5 Many students use the internet for research when completing coursework.

(a) Which **one** of the following statements is correct?

(1)

A	All material available on the internet is accurate.	☒
B	A student has the right to use any material available on the internet.	☒
C	It is acceptable to 'copy and paste' any material found on the internet into coursework.	☒
D	Material found on the internet should always be checked for reliability.	☒

(b) Computer Aided Learning (CAL) is widely used in schools and colleges.

Which **one** of the following statements is correct?

(1)

A	All CAL systems require internet access.	☒
B	CAL systems can only be run from CDs or Local Area Networks.	☒
C	CAL systems can be run from CDs, Local Area Networks or via the internet.	☒
D	CAL systems can only be run from Local Area Networks or via the internet.	☒

(c) Identify **four** benefits of using CAL.

(4)

A	Hard to visualise concepts can be explained through good and effective graphics.	☒
B	Less time is needed to prepare teaching material.	☒
C	All subject areas benefit from using CAL material.	☒
D	Multimedia content is flexible and can be adjusted by the student.	☒
E	Safety can be improved by using technology to simulate laboratory experiments.	☒
F	Technology can be used to provide interactivity, making learning more interesting.	☒
G	Students do not require supervision when using interactive materials.	☒
H	Multimedia content can be used to enhance teaching material.	☒

(d) Some schools use onscreen tests to assess students' progress.

One of the main benefits of an onscreen test is that:

(1)

A	the questions are easier to answer.	☒
B	feedback can be given immediately.	☒
C	the questions are always the same.	☒
D	the necessary systems are easy to set up.	☒

(e) The information from onscreen tests can be transferred automatically into a school's Management Information System (MIS).

Identify **one** advantage to the school of using a MIS.

(1)

A	The information about each student only needs to be entered once and can be output in different formats to suit different users.	☒
B	There is less need to ensure data security as all users can access all information.	☒
C	There is less need to ensure data security as the data is stored centrally.	☒
D	The information about each student only needs to be entered once and all users can access all information.	☒

(f) The **main** role of the MIS within the school is to provide information that will:

(1)

A	enable staff to make informed decisions.	☒
B	enable students to make informed decisions.	☒
C	ensure that student data is kept secure.	☒
D	improve the quality of students' work.	☒

(Total for Question 5 = 9 marks)

6 Most public sector organisations have websites.

Local authorities are part of the public sector.

(a) **Four** reasons for a local authority to introduce a website are to:

(4)

A	monitor the use of local amenities.	☒
B	improve communication with other local authorities by providing up-to-date information about services.	☒
C	improve communication with visitors to the area by providing information about local amenities.	☒
D	save costs by providing online application forms for services such as planning permission.	☒
E	reduce the energy consumption of the local bus services.	☒
F	improve communication with residents by providing up-to-date information about services.	☒
G	increase income by providing additional charges for local services.	☒
H	save costs by reducing the number of staff needed to answer telephone queries from residents.	☒

(b) Which **one** of the following is an accurate statement about local authority websites?

(1)

A	The website will be effective only if a large number of graphics is included.	☒
B	All of the local authority residents will have the skills to use the website.	☒
C	All of the local authority residents will have equal opportunities to access the website.	☒
D	The website will be effective only if the information provided is kept up to date.	☒

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(c) The local authority website provides an RSS feed to local traffic information.

The RSS feed will:

(1)

A	reduce traffic congestion.	☒
B	save time searching for traffic updates.	☒
C	suggest alternative routes.	☒
D	monitor the use of the website.	☒

(d) The internet always provides access to:

(1)

A	valid and accurate information.	☒
B	real time information.	☒
C	a wide range of information.	☒
D	up-to-date information.	☒

(Total for Question 6 = 7 marks)

Turn over ▶

7 Globalisation has had an impact on the way individuals, organisations and society operate.

(a) Many companies have moved production to other countries.

The **main** reason for moving production abroad is to take advantage of:

(1)

A	lower costs of raw materials or labour.	☒
B	cheaper communication methods.	☒
C	cheaper equipment costs.	☒
D	higher selling prices.	☒

(b) The increased use of electronic payment systems has made it easier to purchase items globally.

Electronic payment systems:

(1)

A	are always secure, which reduces the danger of identity theft.	☒
B	are free from all service charges.	☒
C	are very fast, often allowing funds to be transferred almost instantly.	☒
D	require knowledge of currency exchange rates.	☒

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(c) Globalisation has had an impact in many different ways in different countries.

Which **four** of the following statements are correct?

(4)

A	Globalisation has led to a decline in the tourist industry in many countries.	☒
B	Some governments place restrictions on what their citizens are allowed to see and access via the internet.	☒
C	Globalisation has widened the gap between rich and poor countries.	☒
D	Access to the internet is available in all countries and cannot be censored.	☒
E	People can be more tolerant of different cultures as they begin to understand them better.	☒
F	Globalisation has narrowed the gap between rich and poor countries.	☒
G	Globalisation can lead to the erosion of national and cultural identity.	☒

(Total for Question 7 = 6 marks)

TOTAL FOR PAPER = 60 MARKS

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