

Write your name here

Surname	Other names
---------	-------------

**Edexcel**  
**Principal Learning**

Centre Number

--	--	--	--	--

Candidate Number

--	--	--	--

# Information Technology

Level 2

Unit 1: The Potential of Technology

Tuesday 10 January 2012 – 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.

P40445A

©2012 Pearson Education Ltd.

5/5/5/5



Turn over ►

**PEARSON**

**Answer ALL questions.**

**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 EPOS systems are used in supermarkets.

(a) Barcodes on the goods are scanned at the checkout.

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

(1)

<b>A</b>	Barcodes are read by OCR scanners	<input type="checkbox"/>
<b>B</b>	A barcode number cannot be input manually	<input type="checkbox"/>
<b>C</b>	The price of the item is stored in the barcode	<input type="checkbox"/>
<b>D</b>	An item can be identified by its barcode	<input type="checkbox"/>

(b) EPOS terminals in a supermarket are linked to a central computer to form a Local Area Network (LAN).

(i) The central computer is a:

(1)

<b>A</b>	server	<input type="checkbox"/>
<b>B</b>	PC	<input type="checkbox"/>
<b>C</b>	router	<input type="checkbox"/>
<b>D</b>	standalone	<input type="checkbox"/>

(ii) Which **one** of these statements is correct?

(1)

<b>A</b>	Data can be transferred over a LAN using radio waves	<input type="checkbox"/>
<b>B</b>	An internet connection is needed to transfer data over a LAN	<input type="checkbox"/>
<b>C</b>	Wireless devices cannot access data on a LAN	<input type="checkbox"/>
<b>D</b>	A LAN transmits data over a wide geographic area	<input type="checkbox"/>



(c) Which **four** of these statements are correct?

An EPOS system:

(4)

<b>A</b>	allows the supermarket to monitor use of checkouts and predict staffing requirements	<input type="checkbox"/>
<b>B</b>	reduces theft from the supermarket as all items are scanned	<input type="checkbox"/>
<b>C</b>	improves the communication with customers and leads to increased sales	<input type="checkbox"/>
<b>D</b>	provides sales data which enable the supermarket to predict buying patterns	<input type="checkbox"/>
<b>E</b>	prevents the supermarket carrying out of date stock	<input type="checkbox"/>
<b>F</b>	enables the supermarket to set up automatic stock reordering	<input type="checkbox"/>
<b>G</b>	reduces the supermarket's overheads as they are cheap to buy and install	<input type="checkbox"/>
<b>H</b>	allows the supermarket to operate a 'just in time' stock control system	<input type="checkbox"/>

(d) Some supermarkets use shelf-edge labelling systems.

**One** reason shelf-edge labelling systems are used is to:

(1)

<b>A</b>	reduce the amount of warehouse space needed	<input type="checkbox"/>
<b>B</b>	improve the efficiency of the staff restocking shelves	<input type="checkbox"/>
<b>C</b>	increase the amount of stock on the shelves	<input type="checkbox"/>
<b>D</b>	improve the efficiency of the checkout operators	<input type="checkbox"/>



(e) Many supermarkets have self-service checkouts.  
Customers scan and pack their own goods.

(i) Which row correctly identifies the benefits of providing self-service checkouts?

(1)

	<b>Benefit to customer</b>	<b>Benefit to supermarket</b>	
<b>A</b>	Less time spent queuing	Reduces equipment costs	<input type="checkbox"/>
<b>B</b>	Money is saved as fewer errors are made	Reduced staffing costs	<input type="checkbox"/>
<b>C</b>	Less time spent queuing	Reduced staffing costs	<input type="checkbox"/>
<b>D</b>	Money is saved as fewer errors are made	Sales are more accurately monitored	<input type="checkbox"/>

(ii) Self-service checkouts must be designed to prevent theft.

Which device detects when an unscanned item has been placed in the bagging area?

(1)

<b>A</b>	Scanner	<input type="checkbox"/>
<b>B</b>	Sensor	<input type="checkbox"/>
<b>C</b>	Barcode reader	<input type="checkbox"/>
<b>D</b>	Infra red detector	<input type="checkbox"/>

**(Total for Question 1 = 10 marks)**



2 Sarah has an online account with *PJR* bank.

(a) Sarah logs in to her account with her user name and password and is then prompted to enter additional information.

**One** reason for this request is to:

(1)

<b>A</b>	bring the bank's information up to date	<input type="checkbox"/>
<b>B</b>	provide improved security	<input type="checkbox"/>
<b>C</b>	respond to changing legislation	<input type="checkbox"/>
<b>D</b>	improve external communication	<input type="checkbox"/>

(b) Sarah receives an email from the bank asking for her login details.

She should:

(1)

<b>A</b>	provide the information and then delete the email	<input type="checkbox"/>
<b>B</b>	reply with the information as soon as possible	<input type="checkbox"/>
<b>C</b>	forward the email to the bank and then delete it	<input type="checkbox"/>
<b>D</b>	reply and demand to know why the bank has lost the information	<input type="checkbox"/>

(c) Sarah is concerned about the security of her personal data when she is accessing her online account.

Which **one** of the following would give the maximum security on Sarah's PC?

(1)

<b>A</b>	Ensure her virus checker is up to date and regularly update her password	<input type="checkbox"/>
<b>B</b>	Ensure her virus checker is up to date and choose a password that is easy to remember	<input type="checkbox"/>
<b>C</b>	Ensure her firewall is up to date and regularly update her password	<input type="checkbox"/>
<b>D</b>	Ensure her firewall and virus checker are up to date	<input type="checkbox"/>



(d) Most banks have ATMs located outside high street branches.

(i) **One** benefit to the customer of offering this facility is:

(1)

<b>A</b>	withdrawals are more secure	<input type="checkbox"/>
<b>B</b>	charges for withdrawals are lower	<input type="checkbox"/>
<b>C</b>	less time is spent queuing	<input type="checkbox"/>
<b>D</b>	bank charges will be lower	<input type="checkbox"/>

(ii) **One** benefit to the bank is that:

(1)

<b>A</b>	higher rates can be charged	<input type="checkbox"/>
<b>B</b>	less cash is needed on the premises	<input type="checkbox"/>
<b>C</b>	communication with customers is improved	<input type="checkbox"/>
<b>D</b>	staffing costs can be reduced	<input type="checkbox"/>

(e) The information is transmitted securely from the ATM to the bank's central computer.

(i) The information is transmitted via:

(1)

<b>A</b>	a wide area network	<input type="checkbox"/>
<b>B</b>	an intranet	<input type="checkbox"/>
<b>C</b>	the internet	<input type="checkbox"/>
<b>D</b>	a local area network	<input type="checkbox"/>

(ii) **One** method used to secure the data transmitted is:

(1)

<b>A</b>	encryption	<input type="checkbox"/>
<b>B</b>	translation	<input type="checkbox"/>
<b>C</b>	phishing	<input type="checkbox"/>
<b>D</b>	decoding	<input type="checkbox"/>

**(Total for Question 2 = 7 marks)**



3 *Music-online* is a company with a website where customers can buy and download music.

(a) **One** advantage to the company of selling music online rather than in a high street store is that:

(1)

<b>A</b>	customers data is more secure	<input type="checkbox"/>
<b>B</b>	higher prices can be charged	<input type="checkbox"/>
<b>C</b>	different types of payment systems can be used	<input type="checkbox"/>
<b>D</b>	overheads are reduced	<input type="checkbox"/>

(b) Which **one** of these statements is correct?

(1)

<b>A</b>	All music downloads are copyright free	<input type="checkbox"/>
<b>B</b>	Music downloaded can be of a higher quality than that on a CD	<input type="checkbox"/>
<b>C</b>	Downloaded music is always cheaper than music bought from stores	<input type="checkbox"/>
<b>D</b>	Downloaded music takes up less disk space than music on a CD	<input type="checkbox"/>

(c) One aspect of The Copyright, Designs and Patent Act is to prevent the illegal copying of music.

Under the act, permission to copy music must be obtained from the:

(1)

<b>A</b>	retailer	<input type="checkbox"/>
<b>B</b>	government	<input type="checkbox"/>
<b>C</b>	downloader	<input type="checkbox"/>
<b>D</b>	owner	<input type="checkbox"/>



(d) *Music-online* relies on its website being effective.

(i) The website will only be effective if:

(1)

<b>A</b>	graphics are of a high standard	<input type="checkbox"/>
<b>B</b>	large amounts of images are included	<input type="checkbox"/>
<b>C</b>	prices are below other retailers	<input type="checkbox"/>
<b>D</b>	information is kept up to date	<input type="checkbox"/>

(ii) Which **one** of the following correctly identifies the benefits to *Music-online* of having an effective website?

(1)

<b>A</b>	Increased revenue as a result of higher prices	<input type="checkbox"/>
<b>B</b>	Reduced costs as a result of fewer staff being employed	<input type="checkbox"/>
<b>C</b>	Increased revenue as a result of attracting new customers	<input type="checkbox"/>
<b>D</b>	Improved staff motivation arising from improved communication	<input type="checkbox"/>





(e) Internet auction sites are used by many people to buy and sell goods.

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

(4)

<b>A</b>	Online auction sites are closely monitored by the authorities	<input type="checkbox"/>
<b>B</b>	Prospective buyers can make and monitor bids over a period of time	<input type="checkbox"/>
<b>C</b>	Secure methods of payment can be used to pay for goods	<input type="checkbox"/>
<b>D</b>	Photographs uploaded onto an online auction site must be a true representation of the item	<input type="checkbox"/>
<b>E</b>	All items for sale are fully guaranteed	<input type="checkbox"/>
<b>F</b>	Both individuals and companies use online auction sites to buy and sell goods	<input type="checkbox"/>
<b>G</b>	Delivery charges must be paid by either the buyer or the seller	<input type="checkbox"/>
<b>H</b>	Goods bought from an online auction site are always unused	<input type="checkbox"/>

(f) Protecting your personal security details when using the internet is important.

Which **four** of the following would be sensible advice to follow?

(4)

<b>A</b>	Look for the padlock symbol anywhere on a page to ensure it is a safe site	<input type="checkbox"/>
<b>B</b>	Use a payment system that includes automatic encryption	<input type="checkbox"/>
<b>C</b>	Use links from other websites to access trusted sites	<input type="checkbox"/>
<b>D</b>	Do not reply to emails requesting your personal details	<input type="checkbox"/>
<b>E</b>	Always accept the option to store your username and password	<input type="checkbox"/>
<b>F</b>	Type in the URL to ensure a site is genuine	<input type="checkbox"/>
<b>G</b>	Share your personal security details with a close friend in case you forget them	<input type="checkbox"/>
<b>H</b>	Look for HTTPS in the address before entering security details	<input type="checkbox"/>

(Total for Question 3 = 13 marks)



4 *GYM2012* is a fitness studio.

The studio keeps a record of members' attendance.

The data is collected from membership cards that are 'read' when a member enters the studio.

- (a) If a member does not attend for four weeks *GYM2012* sends an email to encourage them to return.

The **main** reason for sending the email is to ensure that:

(1)

<b>A</b>	members maintain their membership and safeguard the business continuity of <i>GYM2012</i>	<input type="checkbox"/>
<b>B</b>	members maintain fitness and <i>GYM2012</i> increase revenue by increasing prices	<input type="checkbox"/>
<b>C</b>	members maintain fitness and safeguard the business continuity of <i>GYM2012</i>	<input type="checkbox"/>
<b>D</b>	members maintain their membership and <i>GYM2012</i> increase revenue by increasing prices	<input type="checkbox"/>

- (b) Members work with a fitness trainer to develop an individual training programme. The programme is stored on a microchip in a 'smart key'.

- (i) Which row correctly identifies the functions of magnetic stripe and microchip technologies?

(1)

	<b>Magnetic stripe technology</b>	<b>Microchip technology</b>	
<b>A</b>	Data can be written to and read from	Data can only be written to	<input type="checkbox"/>
<b>B</b>	Data can only be written to	Data can be written to and read from	<input type="checkbox"/>
<b>C</b>	Data can only be read from	Data can be written to and read from	<input type="checkbox"/>
<b>D</b>	Data can be written to and read from	Data can only be read from	<input type="checkbox"/>



- (ii) When a member uses a treadmill running machine they insert their smart key and the programme to be followed is displayed.

Put a cross  in the correct box to complete each of the following sentences.

(4)

The programme is displayed on a keypad  which allows the member to adjust the programme manually if necessary.  
touch screen

The member's heart rate is measured by a sensor   
biometric scanner   
attached to their arm.

The data is sent to a controller  where it is analysed.  
processor

A control device  then automatically adjusts the speed of the treadmill.  
server

- (iii) Smart key technology is very expensive.

Which **one** of the following correctly identifies why *GYM2012* is willing to make this investment?

(1)

<b>A</b>	Members will be attracted from other gyms leading to an increase in revenue	<input checked="" type="checkbox"/>
<b>B</b>	Members will become fitter leading to higher membership charges	<input checked="" type="checkbox"/>
<b>C</b>	Fewer staff will be needed, leading to a reduction in costs	<input checked="" type="checkbox"/>
<b>D</b>	Members will be attracted from other gyms leading to higher membership charges	<input checked="" type="checkbox"/>



(c) The information collected during the member's training session can be analysed and the results presented as graphs and charts.

The software used to analyse the data and present results is a:

(1)

<b>A</b>	word processor, which is an application package	<input type="checkbox"/>
<b>B</b>	spreadsheet, which is an application package	<input type="checkbox"/>
<b>C</b>	spreadsheet, which is an operating system	<input type="checkbox"/>
<b>D</b>	word processor, which is an operating system	<input type="checkbox"/>

**(Total for Question 4 = 8 marks)**

**5** A college has a network of computers. Students are given user names and passwords to log onto the network.

(a) Malcolm uses other students' login details to access their files on the network without their permission.

Identify the legislation that could be used to prosecute Malcolm.

(1)

<b>A</b>	Data Protection Act	<input type="checkbox"/>
<b>B</b>	Data Misuse Act	<input type="checkbox"/>
<b>C</b>	Computer Misuse Act	<input type="checkbox"/>
<b>D</b>	Copyright Protection Act	<input type="checkbox"/>

(b) Under the same Act it is illegal to write or create computer viruses.

Computer viruses are programs that:

(1)

<b>A</b>	copy themselves repeatedly	<input type="checkbox"/>
<b>B</b>	cannot be deleted	<input type="checkbox"/>
<b>C</b>	defragment a hard drive	<input type="checkbox"/>
<b>D</b>	free-up memory	<input type="checkbox"/>



(c) Students logging on to the internet via the college network often find that websites are blocked.

The software that is used to block websites is:

(1)

<b>A</b>	an email filter	<input type="checkbox"/>
<b>B</b>	an internet filter	<input type="checkbox"/>
<b>C</b>	a pop-up blocker	<input type="checkbox"/>
<b>D</b>	a firewall	<input type="checkbox"/>

(d) The college has an intranet.

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

(4)

<b>A</b>	Access to the intranet will only be possible within the college site	<input type="checkbox"/>
<b>B</b>	Users will be able to access the intranet using both wired and wireless devices	<input type="checkbox"/>
<b>C</b>	The intranet can be hosted on the college server	<input type="checkbox"/>
<b>D</b>	The intranet will be used to provide information to prospective students	<input type="checkbox"/>
<b>E</b>	The intranet must have internet connectivity	<input type="checkbox"/>
<b>F</b>	The college will be able to restrict access to the intranet	<input type="checkbox"/>
<b>G</b>	The intranet will allow staff and students to share files and resources	<input type="checkbox"/>
<b>H</b>	All users will have equal access to the resources on the intranet	<input type="checkbox"/>



(e) The college uses Computer Aided Learning (CAL) in many subject areas.

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

(4)

<b>A</b>	Students do not need supervising when using CAL systems	<input type="checkbox"/>
<b>B</b>	Students can adjust the content to suit their own needs	<input type="checkbox"/>
<b>C</b>	Safety can be improved by simulating science experiments	<input type="checkbox"/>
<b>D</b>	Staff do not need to spend any time preparing teaching materials	<input type="checkbox"/>
<b>E</b>	Students can work at their own pace	<input type="checkbox"/>
<b>F</b>	CAL provides students with a media-rich experience	<input type="checkbox"/>
<b>G</b>	CAL systems are only available on the internet	<input type="checkbox"/>
<b>H</b>	CAL systems allow students to follow individualised learning programmes	<input type="checkbox"/>

(f) The college has recently introduced a Virtual Learning Environment (VLE).

**One** advantage of a VLE is:

(1)

<b>A</b>	staff do not need login details to access a VLE	<input type="checkbox"/>
<b>B</b>	staff do not need to mark work submitted to a VLE	<input type="checkbox"/>
<b>C</b>	the content is always up to date	<input type="checkbox"/>
<b>D</b>	students can access work at any time	<input type="checkbox"/>

**(Total for Question 5 = 12 marks)**



6 Globalisation has had an impact on individuals, organisations and society.

(a) Which **four** of these statements are correct?

Globalisation:

(4)

<b>A</b>	has widened the gap between rich and poor societies	<input type="checkbox"/>
<b>B</b>	can lead to the erosion of national identities	<input type="checkbox"/>
<b>C</b>	has been hampered by poor communication systems in some societies	<input type="checkbox"/>
<b>D</b>	ensures consistent access to information	<input type="checkbox"/>
<b>E</b>	has reduced the gap between rich and poor nations	<input type="checkbox"/>
<b>F</b>	has led to a reduced need for data security	<input type="checkbox"/>
<b>G</b>	ensures that educational opportunities are consistent	<input type="checkbox"/>
<b>H</b>	can lead to an increased tolerance of different cultures	<input type="checkbox"/>

(b) Globalisation has led to many companies relocating.

The **main** reason for relocating is to take advantage of:

(1)

<b>A</b>	higher selling costs	<input type="checkbox"/>
<b>B</b>	lower costs of equipment	<input type="checkbox"/>
<b>C</b>	lower costs of resources and labour	<input type="checkbox"/>
<b>D</b>	wider markets for their goods	<input type="checkbox"/>



(c) The internet provides a vast amount of information.

Which **one** of these statements is correct?

(1)

<b>A</b>	Some governments censor websites they deem to be inappropriate	<input type="checkbox"/>
<b>B</b>	The information provided on the internet is closely monitored	<input type="checkbox"/>
<b>C</b>	There are no restrictions on the downloading and use of information on the internet	<input type="checkbox"/>
<b>D</b>	Websites cannot be censored therefore everyone has equal access to information	<input type="checkbox"/>

(d) Social networking sites and chat rooms are very popular.

Which **four** of these statements are correct?

(4)

<b>A</b>	Reputable social networking sites are monitored to protect users safety	<input type="checkbox"/>
<b>B</b>	Users can restrict access to photographs on a social networking site	<input type="checkbox"/>
<b>C</b>	Data posted onto social networking sites is always accurate	<input type="checkbox"/>
<b>D</b>	Age restrictions are enforced on users of social networking sites	<input type="checkbox"/>
<b>E</b>	Privacy settings can be used to limit access to a user's personal data	<input type="checkbox"/>
<b>F</b>	Using a nickname is one method of helping keep a user's identity safe	<input type="checkbox"/>
<b>G</b>	Access to a social networking site via a network protects the user's data	<input type="checkbox"/>
<b>H</b>	Photographs cannot be copied from social networking sites	<input type="checkbox"/>

**(Total for Question 6 = 10 marks)**

**TOTAL FOR PAPER = 60 MARKS**

