Write your name here

Surname		Other names

Edexcel
Principal Learning

Centre Number

Candidate Number

Information Technology
Level 2
Unit 1: The Potential of Technology

Wednesday 5 June 2013 – Morning	Paper Reference
Time: 1 hour	**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.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*

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

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Answer ALL questions.

Most 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 Most banks provide online **banking** facilities for their customers.

(a) Introducing online banking enables banks to:

(1)

A	reduce overheads by reducing the number of branches	☒
B	increase profits by increasing charges to customers	☒
C	increase profits by offering a limited range of services	☒
D	reduce overheads by reducing charges to customers	☒

(b) When using online banking a customer can:

(1)

A	withdraw cash 24/7	☒
B	avoid paying bank charges	☒
C	pay cash into an account	☒
D	make transfers and payments	☒

(c) Customers must set a password to allow access to their online account.

Which **one** of these provides sensible advice about passwords?

(1)

A	Do not write the password down Mix letters, numbers and symbols Keep the same password for all accounts	☒
B	Keep a written copy of the password in a safe place Make it an easy password to remember Change your password regularly	☒
C	Do not write the password down Mix letters, numbers and symbols Change your password regularly	☒
D	Keep a written copy of the password in a safe place Mix letters, numbers and symbols Change your password regularly	☒

(d) One disadvantage arising from the growth of online banking is the increase in phishing. Phishing is a type of identity theft.

What advice should a customer follow to help prevent phishing?

(1)

A	Install a firewall and do not open email attachments	☒
B	Install an internet filter and do not provide private information when responding to emails	☒
C	Install a firewall and an internet filter	☒
D	Install a firewall and do not provide private information when responding to emails	☒

(e) Most banks have a FAQ section on their website.

One benefit to the bank of having this facility is that:

(1)

A	customers of other banks will be attracted to the bank	☒
B	fewer staff will be needed to answer questions	☒
C	communications between staff will be improved	☒
D	revenue will increase as a charge can be made	☒

(f) The increased use of online and telephone banking has led to growth in the number of call centres.

Identify which **four** of the following statements are correct.

(4)

A	Call centre staff do not need training	☒
B	Calls are recorded to monitor staff satisfaction	☒
C	Calls are monitored for training purposes	☒
D	Call centre staff are usually highly paid	☒
E	Calls are filtered through a menu system to reduce customer waiting time	☒
F	Calls are recorded to monitor staff performance	☒
G	Call centre staff can deal with queries from customers located abroad	☒
H	All call centre staff are employed in the public sector	☒

(Total for Question 1 = 9 marks)

2 (a) EPOS systems are used in supermarkets.

Barcodes are scanned as part of the EPOS system.

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

Barcodes:

(1)

A	reduce theft from supermarkets	☒
B	are input using OCR scanners	☒
C	reduce data entry errors	☒
D	are input manually	☒

(b) Identify **one** piece of data that is provided by a barcode.

(1)

A	Item price	☒
B	Use by date	☒
C	Item code	☒
D	Supermarket name	☒

(c) The table shows the processes that are carried out by the EPOS system. They are not in the correct order.

Put them in the correct order by entering a number, from 1 to 5, next to each step.

The first one is done for you.

(4)

A	The item price is identified	
B	Data is sent to a computer database	
C	An itemised receipt is printed	
D	The price is displayed	
E	The barcode is scanned	1

(d) **One** benefit to a supermarket of an EPOS system is that it can monitor the:

(1)

A	length of queues	☒
B	sale of individual items	☒
C	purchases by individual customers	☒
D	profit made on each sale	☒

(e) Many supermarkets provide loyalty card schemes.

The device used to capture electronic data from a loyalty card is a:

(1)

A	magnetic stripe reader	☒
B	OMR scanner	☒
C	image scanner	☒
D	touch screen	☒

(f) **One** advantage to the customer of joining a loyalty card scheme is that:

(1)

A	checkout queues will be shorter	☒
B	points can be used to buy items	☒
C	item prices are reduced	☒
D	items can be scanned quickly	☒

(g) Supermarkets use loyalty card schemes to encourage customers to return to the store.

The data collected from the cards is used to:

(1)

A	increase the range of items stocked	☒
B	determine opening hours	☒
C	decrease prices on the items purchased	☒
D	target advertising at individual customers	☒

(Total for Question 2 = 10 marks)

3 Sandstreet School has a Local Area Network (LAN).

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

(1)

A	Workstations need internet access to connect to a LAN	☒
B	A LAN can be accessed by both wired and wireless connections	☒
C	A LAN will cover a wide geographical area	☒
D	A LAN uses only satellite technology to transmit data	☒

(b) The LAN has internet connectivity.

A device that can be used to connect the LAN to the internet is a:

(1)

A	router	☒
B	processor	☒
C	dongle	☒
D	file server	☒

(c) Wireless network connections are used for convenience.

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

Wireless connections:

(1)

A	are always faster than wired connections	☒
B	are not subject to interference	☒
C	can be used anywhere	☒
D	are less secure than wired connections	☒

(d) Staff use the LAN to access the school's management information system.

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

Management information systems:

(1)

A	give users access to all data on the network	☒
B	allow data to be output in different formats	☒
C	limit access to data to only one person at a time	☒
D	restrict output to one format	☒

(ii) **One** benefit of the management information system is that staff can:

(1)

A	use student data to help make effective planning decisions	☒
B	submit teaching notes for students to access	☒
C	access teaching resources and lesson plans	☒
D	access up to date subject information	☒

(e) Students use the internet to research assignment topics.

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

All information available on the internet:

(1)

A	is reliable and free from bias	☒
B	has been checked for accuracy	☒
C	can be freely downloaded and copied	☒
D	may be subject to copyright restrictions	☒

(f) The school has a website providing information for students and parents.

The geography department has incorporated an RSS feed to display information about the weather.

The RSS feed will:

(1)

A	enable staff to monitor the time each student spends using the information	☒
B	reduce the time that students spend on the internet	☒
C	enable staff to monitor the number of students accessing the information	☒
D	reduce the time students spend checking for updated information	☒

(g) Computer Aided Learning (CAL) is one area where technologies have had a significant impact.

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

CAL systems:

(4)

A	can be used to show simulations of science experiments	☒
B	are most successful when teachers work with the students	☒
C	can be adapted by the students to suit their learning needs	☒
D	can be used to complement traditional teaching methods	☒
E	can provide instant assessment feedback to help motivate students	☒
F	require internet connectivity to be effective	☒
G	allow students to learn at their own pace and in their own time	☒
H	are appropriate in all teaching situations	☒

(Total for Question 3 = 11 marks)

4 *Global Glazing* sells double glazed windows.

David is a sales representative who visits potential customers to take measurements and provide quotations.

Global Glazing has provided David with a tablet computer.

(a) David uses the computer to calculate costs and provide quotations.

Identify the software that **must** be installed to allow David to do the calculations.

(1)

A	A spreadsheet and a database	☒
B	A spreadsheet and an operating system	☒
C	A database and an operating system	☒
D	A database and a security package	☒

(b) David has recently been provided with a wireless printer which enables him to print a hard copy of the quotation for the customer.

One reason for introducing this new technology is to:

(1)

A	improve communication with the customer	☒
B	improve internal communications	☒
C	keep the customer's data secure	☒
D	reduce the costs of printing	☒

(c) When the quotation has been accepted David emails it to *Global Glazing* from his tablet computer.

(i) The information will be used to:

(1)

A	plan a sales strategy and an installation date	☒
B	plan an installation date and improve communications with the customer	☒
C	plan a production schedule and an installation date	☒
D	plan a sales strategy and improve communications with the customer	☒

(ii) Identify the components David will need to send the email securely.

(1)

A	Modem, communication software, security software	☒
B	Modem, web browser, communication software	☒
C	ISP, communication software, security software	☒
D	Modem, ISP, security software	☒

(d) David must ensure that the customer data stored on his computer is kept secure.

The legislation that imposes this regulation is the:

(1)

A	Data Protection Act	☒
B	Data Misuse Act	☒
C	Computer Misuse Act	☒
D	Computer Protection Act	☒

(e) David must also take care to avoid other problems that can occur when accessing the internet.

The table shows some problems that can occur and **one** solution for **each** problem.

Put a cross in the box to match the problem with the solution.

(4)

Problem	Solution				
	Firewall	Back up	Email filter	Anti-virus software	Internet filter
Anti-social material	☒	☒	☒	☒	☒
Hacking attempts	☒	☒	☒	☒	☒
Viruses	☒	☒	☒	☒	☒
Spam	☒	☒	☒	☒	☒

(f) Using this technology enables David to work remotely.

This has advantages for both *Global Glazing* and David.

(i) **One** advantage for David is the:

(1)

A	improved communication with his supervisor	☒
B	reduction in office equipment costs	☒
C	improved communication with other team members	☒
D	increased flexibility of working hours	☒

(ii) **One** advantage for *Global Glazing* is the:

(1)

A	improved control over individual employees	☒
B	ability to recruit employees from a wider area	☒
C	improved communication with employees	☒
D	ability to reduce staff wages	☒

(Total for Question 4 = 11 marks)

Turn over ▶

5 Car manufacturers use technology in many different ways.

(a) Computer Aided Design (CAD) is used in the design of new cars.

Which **four** of these are advantages of using CAD in car design?

(4)

A	Accurate scaled designs can be produced	☒
B	The software can be used to calculate petrol consumption	☒
C	Manufacturing time will be reduced	☒
D	Training is not needed to use the software	☒
E	Original designs can be adjusted easily to suit needs	☒
F	Manufacturing costs will be reduced	☒
G	Designs can be viewed in 3D	☒
H	A library of standard components can be incorporated	☒

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(b) Computer Aided Manufacture (CAM) is used to produce the cars.

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

(1)

A	CAM equipment is cheap to buy and install	☒
B	CAM systems reduce industrial pollution	☒
C	CAM can be used to carry out repetitive tasks	☒
D	CAM systems can reduce the cost of raw materials	☒

(ii) Robots are often used as part of CAM systems.

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

Robots can:

(1)

A	operate without human supervision	☒
B	be programmed to carry out a variety of tasks	☒
C	react instantly to changes in production methods	☒
D	make choices and decisions	☒

(c) Process control systems are also used in car manufacture.

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

Process control is a computerised system that relies on:

(1)

A	feedback from a sensor	☒
B	sending information to a sensor	☒
C	input from a human	☒
D	feedback from a robot	☒

(d) The increase in the use of technology in manufacturing has had an impact on patterns of employment.

Which group of statements **best** describes the changing pattern?

(1)

A	An increase in the number of skilled employees A decrease in the number of unskilled employees A decreased need for training	☒
B	A decrease in the number of skilled employees An increase in the number of unskilled employees An increased need for training	☒
C	An increase in the number of skilled employees A decrease in the number of unskilled employees An increased need for training	☒
D	A decrease in the number of skilled employees A decrease in the number of unskilled employees An increased need for training	☒

(Total for Question 5 = 8 marks)

6 Communication is an important factor in the success of an organisation.

(a) (i) Many organisations communicate using an internal network of computers.

This type of communication can help the organisation by:

(1)

A	improving employees' access to information	☒
B	reducing the need for security measures	☒
C	improving customers' access to information	☒
D	reducing the need for communication with competitors	☒

(ii) One facility that is often provided on an internal network is an intranet.

Identify which **four** of the following statements are correct.

An intranet:

(4)

A	is usually hosted on a public network	☒
B	requires a secure log in process	☒
C	is accessible to anyone via the company's website	☒
D	usually contains information about procedures related to the company	☒
E	is only available to members of the organisation	☒
F	provides direct access to customers and suppliers	☒
G	is usually hosted on the company's own web servers	☒
H	is a useful method of publishing advertising material	☒

(b) Many organisations use websites to communicate information to customers.

(i) Identify **four** ways in which a website can contribute to the success of an organisation.

(4)

A	Profits can be increased by charging higher prices for goods	☒
B	Income can be generated from advertisements placed on the site for other organisations	☒
C	Additional staff can be hired to deal with any increase in business	☒
D	Improved communications with suppliers can lead to lower overheads	☒
E	Customer feedback can be used to improve the quality of the services offered	☒
F	Income can be generated by accepting orders 24/7	☒
G	Income can be generated from the number of hits on the website	☒
H	Business information can be readily updated	☒

(ii) To be effective a website must work at an acceptable speed.

Which **one** of these has the **most** impact on the speed of a website?

(1)

A	The text style and size	☒
B	The resolution of the graphics	☒
C	The number of links on a page	☒
D	The page layout	☒

(c) Social networking sites are used to communicate over the internet.

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

Reputable social networking sites:

(1)

A	have an age restriction policy	☒
B	check content for accuracy	☒
C	verify users' details	☒
D	restrict access to photographs	☒

(Total for Question 6 = 11 marks)

TOTAL FOR PAPER = 60 MARKS

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