CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY **9713/11**

Paper 1 **October/November 2016**

1 hour 15 minutes

Candidates answer on the Question Paper.

No Additional Materials are required.

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on all the work you hand in.
Write in blue or black pen.
Do not use staples, paper clips, glue or correction fluid.
You may use an HB pencil for any diagrams, graphs or rough working.
DO **NOT** WRITE IN ANY BARCODES.

Answer **all** questions.

The number of marks is given in brackets [ ] at the end of each question or part question.

The businesses described in this paper are entirely fictitious.

Scenario 1

Questions 1 and 2

Didier is a student who is studying for his A levels. He attends Montmartre College.

When he is at college he uses the college's computer network in order to do his coursework.

When he is at home he uses his own laptop to continue work that he did not manage to complete at college.

Didier needs to take weather readings for a month as part of his Geography coursework. He will then have to write a report of his findings.

Didier uses the internet to find some information about the climate during the previous eleven months for his report.

1 **(a)** Name **four** storage devices which Didier or the college could use. For each device give a different use.

Device 1 ....

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Device 2 ....

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Device 3 ....

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Device 4 ....

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(b) Describe how Didier will use each of the following types of software to prepare his Geography report. Each use must be different.

(i) Spreadsheet:

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(ii) Database:

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(iii) Web Browser:

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(c) Describe how Didier can find relevant pages on the internet related to his Geography coursework.

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2 Didier has found the ideal website for his needs. It provides the data that he wants in the form of a .csv file.

Three file types are shown on the left along with six descriptions on the right.

Draw **six** lines (2 from each file type) to connect each file type to its most appropriate descriptions.

Each description can only be used once.

	File contains no formatting information
.csv file	Allows user to choose different fonts and effects
	Distinct data items are separated by commas
.rtf file	File used for transferring data between spreadsheets
	File contains text mixed with tags which are used to turn effects on and off
.txt file	Can be opened by all word processors

[4]

Scenario 2

Questions 3 and 4

Kwikshop is a supermarket company which has a number of branches across the country. It uses computer technology at checkouts in all its supermarkets. Barcode scanners are used to input data from goods purchased by customers. Smart card readers are used to allow customers to complete their transactions.

The management of Kwikshop is aware of new technology that will allow customers to pay at the checkout without entering their card into the chip and pin machine. They would like to introduce this contactless technology throughout their stores.

The management of Kwikshop have recently introduced an online shopping system. Customers provide a list of goods that they require on the supermarket company's website and pay electronically. The goods are later delivered to their home.

3 **(a)** Each item on sale in the supermarket has a barcode printed on it.

5 0 1 2 3 4 5 6 1 2 3 4 5

(i) Explain why the bars on the barcode are different widths.

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(ii) Describe what the digits stand for and why they are necessary.

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(iii) Explain how the data collected from the barcodes at the checkout is used.

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(b) Rosef, a systems analyst, has been employed to oversee the introduction of the new contactless system.

Describe each of the following methods of implementation that Rosef could use and explain how each could be used in the supermarket to introduce the new system.

Parallel running:

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Direct changeover:

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Pilot running:

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(c) Rosef will need to provide documentation for the checkout operators using the contactless payment system and for the administration staff of the supermarket.

Explain the need for user documentation specifically for the contactless payment system in Kwikshop.

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4 (a) Describe the benefits and drawbacks of this new online shopping system for the customers of Kwikshop.

Benefits ....

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Drawbacks ....

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(b) (i) Describe **three** different measures that the workers can take to overcome computer-related health problems. Each problem must be different.

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   (ii) Customers depend on the supermarket using their data correctly.

   Explain what is meant by each of the following security/privacy measures:

   Aggregated information:

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   Data protection legislation:

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   Duty of confidence:

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Scenario 3

Question 5

Modeast hospital has an intensive care ward. The patients in each of the six beds in the intensive care ward are monitored by a computer system.

5 **(a)** Explain how the computer system can be used in the intensive care unit of the hospital.

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(b) Describe **two** forms of output that the system will produce and explain why each is necessary.

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Scenario 4

Question 6

Homedec is a company that sells items for decorating homes.

Homedec is bringing out a new range of products designed to decorate bathrooms.

The workers who are employed in the stores are offered a number of different working patterns so that Homedec can increase its opening hours.

6 (a) Name and describe **three** different working patterns that would be appropriate for workers in the stores. For each working pattern describe a different benefit to the workers in Homedec.

1 ....

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2 ....

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(b) Workers at the stores are paid a bonus each month. Workers' pay, bonuses and methods of payment are stored in a spreadsheet, part of which is shown here.

	A	B	C	D	E	F	G	H	I
1	ID	Hours	**Pay per hour**	Bonus	Final Wage				
2	216	16	$23.25	Blue	=B2*C2+(VLOOKUP(D2,$G$2:$I$4,3,FALSE))		Blue		$5.00
3	233	22	$16.95	Blue			Silver		$10.00
4	243	45	$22.75	Silver			Gold		$15.00
5	257	45	$15.85	Gold					
6	261	16	$16.85	Silver					

Explain the formula which is in cell E2.

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(c) Homedec needs to advertise its new range of products.
Discuss the ICT methods that can be used to advertise the products in the new bathroom range.

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