

CANDIDATE
NAME

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CENTRE
NUMBER

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APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY

9713/12

Paper 1

February/March 2017

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 dark 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.

This document consists of **15** printed pages and **1** blank page.

Scenario 1**Questions 1, 2, 3 and 4**

Lionel is the chief systems analyst in a major software organisation. He is leading a project where a company requires a brand new computer system. They sell a number of products which each have a product number consisting of 13 digits.

Lionel supervises a team of programmers producing the necessary software. He will also supervise a team of hardware engineers who will be installing the necessary hardware.

After the system has been designed and developed it will need to be implemented.

The programmers who work for him want to work from home. Lionel has said that he wants them to work in the office. However, he has given the workers the opportunity to change their working practices.

1 Tick the **four** most accurate statements about different working patterns.

	✓
Flexible hours means working fewer hours every day.	
Workers who work part-time earn more than full-time workers.	
Flexible hours involves working the same number of hours as a normal worker.	
Job sharing never involves workers communicating with each other.	
Part-time means working fewer hours than a full-time worker.	
Workers never get ill working flexible hours.	
Job sharing can involve working fewer days than normal.	
Full-time workers work harder than part-time workers.	
Job sharing involves two workers doing a job that would normally be done by one worker.	
Flexible hours involves working whenever you want to.	

[4]

2 Tick **four** benefits to the **company** of workers changing their working patterns.

	✓
Programmers can choose to work off-peak hours as travelling to work outside peak times is less stressful.	
Programmers tend to be more content and have greater productivity.	
It is difficult to arrange meeting times to suit all workers.	
If programmers stay late to finish a job, they can take time off at a later date.	
It is easier to allow for programmers' personal needs, which leads to a reduction in absenteeism/improved punctuality.	
The company saves money on utility bills.	
The company is more likely to keep staff so does not have to spend money on retraining.	
The company can save money as it rents fewer offices.	
It is easier for the company to organise training sessions.	
Working flexible hours would appeal to many programmers so it helps future recruitment.	

[4]

Scenario 2**Questions 5, 6 and 7**

When carrying out a recent survey, Valencia Bank made an online form available for its customers to complete. As a result of the survey the bank realised that most of its customers now use its internet banking facility.

When banking online, customers are required to type in their username and password in order to gain access to their accounts. Marie, a typical customer, thinks that this does not provide sufficient security for users and has suggested the bank should offer customers increased security measures when logging in to their accounts. She also commented that the form she had to complete was not really fit for purpose.

Marie can see all her credits and debits when she looks at the transactions in her account. She likes, however, to see what she is spending her money on. She keeps a spreadsheet which is more detailed than the bank's list of transactions.

(c) Describe **four** benefits to the bank of introducing online banking.

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7 Below is one month's entries in Marie's spreadsheet.

	A	B	C	D	E	F	G	H	I
1							Code	Type	
2							D	Dining out	
3							F	Food	
4							L	Leisure	
5							M	Mortgage	
6							S	Salary	
7		January							
8					Credits	Debits			
9									
10			01-01-17		\$3,400		S	Salary	
11			05-01-17			\$200	F	Food	
12			08-01-17			\$150	L	Leisure	
13			12-01-17			\$1,500	M	Mortgage	
14			13-01-17			\$210	F	Food	
15			16-01-17			\$120	D	Dining out	
16			21-01-17			\$241	F	Food	
17			23-01-17			\$135	D	Dining out	
18			26-01-17			\$147	D	Dining out	
19			28-01-17			\$310	F	Food	
20			30-01-17			\$200	L	Leisure	
21									
22									
23						\$3,213		Dining out	\$402
24								Food	\$961
25								Leisure	\$350
26								Mortgage	\$1,500
27									

Marie has used a function to calculate the amount of money she spent on Dining out. This function was used in cell I23. She used cell references from columns G and F within the function. She replicated the formula for other debits.

Write down the formula she entered in cell I23.

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.....[6]

Scenario 3

Questions 8, 9 and 10

BRS, a United Kingdom (UK)-based company, has an overseas call centre offering its customers technical support.

Each customer has a user ID and password.

The company has recently taken the decision to relocate the call centre back to the UK.

8 (a) Describe how **three** different ICT devices are used by each telephony operator in the call centre.

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(b) Before a call reaches a telephony operator, the system uses Interactive Voice Response (IVR) to process the call.

Describe the IVR process after it receives a customer call.

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9 (a) Describe **four** actions that can cause health issues for the telephony operators. Include a different health issue in each of your answers.

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(b) Describe **three** ways in which safety issues can arise in the telephony operator's work space. Each issue must be different.

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