

CANDIDATE
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APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY

9713/32

Paper 3

October/November 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 **19** printed pages and **5** blank pages.

Scenario 1

Questions 1, 2, 3 and 4

A university department carries out research into climate change by creating climate models using computer systems.

It uses the computer models to try to predict possible future changes in the climate.

The computer models have to be tested to see if they are accurate or not.

1 Describe, with suitable examples, what is meant by a climate model.

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2 Describe, with suitable examples, how physical variables would be collected automatically for use in the computer climate model.

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Scenario 2**Questions 5, 6, 7 and 8**

A global marketing company stores its documents and customer data in computer files that are used in its offices around the world.

Staff can use the files to create personalised letters for sending to customers.

The letters are created from master documents and use customer data files.

The master documents, and other company documents, are stored as *rtf* files and the source files are extracted from the customer data files and stored as *csv* files.

The *csv* files are also used to exchange customer data between the different software applications used in the offices.

5 Describe how data is stored in a *csv* file.

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6 Explain why *csv* files are used to exchange data between different software applications.

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7 Explain, with suitable examples, how the use of *csv* files can cause problems when exchanging data.

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Scenario 3

Questions 9, 10, 11 and 12

A company with offices in cities all over the world uses dedicated cables as well as wireless technology to connect its office computers and other devices to its networks.

The networks have servers to provide IT services and data storage for the company staff. The networks are connected to the internet.

The company uses a variety of methods to try and protect the computers, devices and the data stored on the networked servers from viruses and from attacks by malicious sources.

12 Describe how the spreading of viruses between the networked devices could be prevented.

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Scenario 4

Questions 13, 14 and 15

A theatre company puts on performances of a play twice a day on every day of the week.

Customers can book tickets for the performances using the theatre's automated booking system.

The automated booking system uses a database to store the bookings. To avoid customer disappointment, the database is designed to prevent double-bookings of the seats in the theatre.

Scenario 5

Questions 16 and 17

A government website allows citizens access to legal and other public interest information.

The government has decided that the website should be redesigned to allow greater access by disabled people to the information shown on the web pages.

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