

Cambridge International Examinations

Cambridge International Advanced Level

CANDIDATE NAME					
CENTRE NUMBER			CANDIDATE NUMBER		

1900814656

APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY

9713/33

Paper 3

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 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.



Scenario 1

Questions 1, 2, 3 and 4

Faster Cars is a racing car company that produces high-speed racing cars.

The company uses CAD/CAM.

The company employs engineers and mechanics to maintain the cars. It has an expert system that can be used by the mechanics when trying to diagnose faults in the car engines.

The company has its own racing drivers who use simulators to practise high-speed racing for when they are driving the real racing cars.

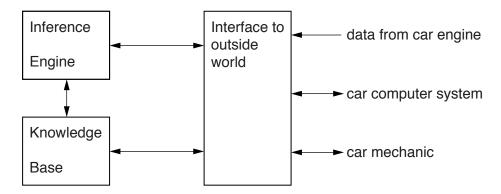
1	(a)	Explain what is meant by CAD/CAM.
		[4]
	(b)	
	(a)	Describe two specialist input devices that could be used by a designer using CAD.
		1
		2
		[2]
	(c)	Describe two specialist output devices that could be used by a designer using CAD.
		1
		2
		[2]

		,				
Explain wh	y the compar	ny would cho	ose to use (CAM to produ	ce the cars.	

2 When a car engine develops a fault, a mechanic will use the expert system to help diagnose the fault.

The diagram shows an outline of the expert system that is used by the mechanic.

(a) Describe two inputs to the expert system from the car engine.



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3	Describe how each of the following output devices might be used in a racing car simulator.
	motor
	buzzer
	large screen
	loudspeaker
	[4

4

cars.	enefits and dra	- 3.	3 11 14	- 10-1	 9	9
						[8]

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Scenario 2

Questions 5, 6 and 7

Floatem is a multi-national shipping company which owns a fleet of cruise ships. These ships sail to and from ports all over the world carrying passengers on holidays.

Passengers may book holiday cruises in person at any office or online using the company's website.

Every passenger cabin on the cruise ships is equipped with an entertainment system that can be used to:

- listen to music from CDs
- listen to radio programmes
- listen to audio books
- access MP3 files stored on a file server
- watch video on-demand or satellite TV.

5	(a)	Describe, including their purpose, six items of information that a customer would have to enter when booking a holiday cruise online.
		1
		2
		3
		4
		5
		6
		[6]

offic	lain why a customer would prefer to book a cruise online rather than at one of the compan ces.
	[6
c) An	e-ticket and an e-receipt are issued when a booking is made online.
(i)	Describe one item of information that might be shown on the e-ticket.
	[
(ii)	Describe one item of information that might be shown on the e-receipt. This item must be different from the one given in (c)(i) .

6 (a)		scribe how each of the following could be used in the entertainment system in the senger cabins.
	(i)	USB port
		[2]
	(ii)	Flash memory card
		ro
(b)) Exp	lain why MP3 files are used to distribute content to the entertainment system.
		[4]

Kumar, a passenger, decides to use the entertainment system to watch TV in his cabin.

7

a)	Kumar watches a live sports programme on a satellite TV channel.
	Describe how the sports programme is sent to, and received by, the entertainment system fo Kumar to watch.
	6

(b)	Kumar watches a movie using the ship's video on-demand system.
	Explain how the ship's video on-demand system enables Kumar to watch the movie of his choice.
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