



General Certificate of Secondary Education 2011

Information and Communication Technology

Full Course

Paper 2 Foundation Tier



[G5802]

THURSDAY 16 JUNE, AFTERNOON

TIME

1 hour.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

Write your answers in the spaces provided in this question paper.

Complete in blue or black ink only. **Do not write in pencil or with a gel pen**. Answer **all eleven** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 80, including a maximum of 4 marks for quality of written communication.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

For Examiner's use only		
Question Number	Marks	
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
QWC		

Total	
Marks	

6865 Examiner Number



1 (a) An examinations officer has created a relational database to store data about students who are taking examinations. Part of the database is shown below.

Examiner Only	
Marks	Remark

STUDENT TABLE

Student ID	Surname	Forename	Date of Birth	Gender
1000	Devlin	Anna	10/01/1995	F
1001	Kane	John	15/03/1995	M
1002	Walsh	Jack	12/09/1994	M
1003	Taylor	Eleanor	01/01/1993	F
1004	Smyth	Lesley	26/05/1993	F
1005	Doherty	Mark	01/04/1993	M

EXAMINATION TABLE

Examination Code	Examination Name
GCSE01	ICT
GCSE02	Mathematics
GCSE03	Geography
GCSE04	History
GCSE05	Art
GCSE06	French

John Kane is taking the Geography and Art examinations. Eleanor Taylor and Anna Devlin are taking the ICT examination. Mark Doherty and Jack Walsh are taking the French examination.



Using the information provided and the STUDENT and EXAMINATION tables complete the **STUDENT-EXAMINATION** table below. John Kane's entries have been completed for you.

Examiner Only Marks Remark

STUDENT-EXAMINATION TABLE

Student ID	Examination Code
1001	GCSE03
1001	GCSE05

[4]

(b) (i) Suggest data types for the following fields.

Fieldname	Data type
Student ID	
Examination Code	
Date of Birth	

[3]

Total Question 1

[Turn over



(ii)	The examinations officer wants to produce a list containing the
	Forename, Surname, Examination Code and Examination
	Name of all the Female pupils who are taking the ICT
	examination.

Examiner Only		
Marks	Remark	

Complete the table below by entering the correct fieldname or criteria in the non-shaded spaces provided.

Tablename	STUDENT	STUDENT	STUDENT- EXAMINATION	EXAMINATION	STUDENT
Fieldname	[1]	Surname	Examination Code	Examination Name	[1]
Criteria				[1]	="F"

(iii) What feature of a database is used to select records g	given criteria?		
	[1]		
		Total Qu	uestion



2	Data	a capture enables data to be entered onto a computer system.	Examiner Only Marks Remar	·k
	(a)	An example of this is OMR .		
		(i) What do the letters OMR stand for?		
			[1]	
		(ii) Give ONE application of OMR.		
			[1]	
		(iii) List TWO advantages of using OMR instead of entering d	lata	
		using a keyboard.		
		1.		
		2		
			[2]	
	` /	A student has lost the electronic copy of his coursework but sti printed copy. He is going to input it again using OCR .	ill has a	
		(i) What do the letters OCR stand for?		
			[1]	
		(ii) What input device will he need?		
			[1]	
6865			[Turn ove	er



(c) In the table below, state what the **File type** means. The first one has been done for you.

File type	Meaning
RTF	Rich Text Format
JPEG	
TXT	
MPEG	

[3]

Total Question 2			
Total Question 2			
	Total Qu	nestion 2	

Examiner Only

Marks Remark



		rah has visited a website to buy a new pair of shoes for her school e website provides many facilities.	formal.	Examin Marks	er Only Remark
(a)	Apart from buying goods, identify ONE other way Sarah can us of the facilities listed below.	se each		
		(i) An online customer account.			
		(ii) A track order facility.			
(b)	Give TWO advantages to Sarah of shopping online.			
		1.			
		2	[2]		
(c)	Give TWO advantages to the company of supplying goods to customers via a website.			
		1.			
		2			
			[2]		estion 3



a)	List TWO advantages of using email instead of fax.		
<i>(u)</i>			
	1		
	2	[2]	
(b)	Give ONE reason why Doctor Brown should keep the	e fax machine.	
		[1]	
(c)	Give TWO pieces of information that could be obtain electronic appointment system.	ed from the	
	1		
	2		
		[2]	
(d)	In order to remind patients about their appointment tinhas decided to buy a SMS system. In the table below, tick (✓) the TWO statements that SMS.	·	
	Statement	Tick (✓)	
	SMS means Short Message Service		
	SMS can only be sent using a mobile phone		
	SMS can be received when a call is in progress		
	SMS allows users to send photographs		



(e) I	Octor Brown has bought a PDA.		Examir Marks	er Only Remar
(What do the letters PDA stand for?			
		[1]		
(ii) List TWO features of the PDA which make use of WAP .			
	1			
	2	[2]		
			Total Qı	estion



5	A sc	choo	l has a new website which includes a student log in area.		Examir Marks	ner Only Remark
	(a)	(i)	What security is normally used when logging in?			
				[1]		
		(ii)	Why would the school require students to log in to the student			
			area?			
				[1]		
	_		an download a PDF document with uniform guidelines from the website.	;		
	(b)	Wh	at is a PDF document?			
				[1]		
	(c)	Tea	chers in the school make use of DVD and CD-ROM .			
		(i)	What do the letters DVD stand for?			
				[1]		
		(ii)	What do the letters CD-ROM stand for?			
				[1]		
			e school office is part of the school network. Give TWO ways in ch the office staff could make use of computers.	1		
		1			Total Q	uestion 5
6865		2		[2]		



			nal View Hotel is a new hotel. Internet access is to be provided it dooms for all guests.	n	Exami Marks	ner Only Remark
	The gue		nager is unsure if he should install a PSTN or an ADSL link for	his		
	(a)	(i)	What do the letters ADSL stand for?			
				[1]		
		(ii)	How does ADSL differ from PSTN?			
				[1]		
	He lobl		wants to provide wireless Internet access for guests in the hotel			
	(b)	(i)	Give ONE disadvantage of using wireless Internet connections			
				[1]		
		(ii)	Give ONE advantage of using wireless Internet connections.			
				[1]		
	Не	must	t then choose an ISP (Internet Sevice Provider).			
	(c)	List	TWO facilities provided by an ISP.			
		1				
		2			Total Q	uestion 6
				[2]		
365					[Tur	n over



7		the owner of a website design company. He employ e UK using teleworking.	s staff from all	Examiner Only Marks Remark
		State TWO problems Alan might have if all of his employed using teleworking .	staff are	
		1		
		2		
		2	[2]	
	(ii)	State ONE disadvantage to the staff of teleworking	ıg.	
			[1]	
	em In	an wants to have an interactive conversation with all aployees at the same time. the table below, place a tick () beside TWO method mmunication that would allow him to do this.		
	M	lethod of communication Tick (✓)		
	In	stant Messaging		
	V	ideo conferencing		
	Fa	ax		
	Eı	mail		
			[2]	
6865				



(c) In the table below, tick (✓) ONE job that could **not** be carried out using teleworking.

Job	Tick (✓)
Computer programmer	
Help desk operator	
Hardware designer	
ICT technician	

Total Qu	estion 7	
	2. 322 ,	
[Tur	n over	

Examiner Only

Marks Remark

[1]



8		chael manages a call centre and is offering training to all his staff about the and Safety when using a computer.	out	Examin Marks	er Only Remark
	(a)	State TWO common injuries arising from using computers too much	eh.		
		1			
		2			
	(b)	Give TWO pieces of advice Michael can give staff to help prevent injuries that arise from using computers too much.			
		1			
		2	[2]		
	(c)	Give ONE piece of advice Michael can give to staff to help ensure accidents do not occur at computer workstations.			
			[1]		
				Total Qu	estion 8
6865					



9 Electricity companies and gas companies use batch processing to create Examiner Only bills for their customers. The following diagram describes the main stages involved in the creation of customer bills. Collect data from customer meters Customer meter readings entered in one batch Data stored in transaction file Sort transaction file Old Master file Merge master file and transaction file to calculate bill New Master file Print bill (a) State why the transaction file must be sorted into the same order as the master file. Turn over 6865



(b)	Give ONE reason why an inkjet printer would not be suitable for this task.		
	[1]		
	ne customers wish to receive their bills via email rather than receiving a sted copy.		
(c)	Give ONE advantage to the company of sending bills via email.		
	[1]		
Inpı	at data must be verified before processing takes place.		
(d)	Describe ONE method of verifying data.		
	[2]		
	[2]		
	[2]		
	[2]		
		Total Que	stion



10	Virtual reality systems and simulations are often used for training and gaming. Examiner Only gaming. Remark Remark						
	(a)	Give ONE advantage of using virtual reality systems to train staff.					
		[1]					
	(b)	Give TWO disadvantages of using virtual reality systems to train staff. 1					
		2[2]					
	(c)	Identify TWO input devices used with virtual reality gaming systems in arcade games.					
		1.					
			Total Question 10				
6865			[Turn over				



11	Th	e Uk	X is undergoing a massive changeover to Digital TV	Examine Marks	er Only Remark
	(a)	Stat TV.	te THREE advantages to the viewer of digital TV over analogue		
			[3]		
		mo wers	ve towards Digital TV will have an impact on TV companies and		
	(b)	(i)	State ONE disadvantage to TV broadcasting companies of introducing Digital TV.		
			[1]		
6865					



	(ii) Give TWO reasons why some viewers might not accept the		Examine Marks	
	changeover to Digital TV.		Marks	Remark
	1			
	2			
		_ [2]		
	THIS IS THE END OF THE QUESTION PAPER			
			Total Que	estion 11
			Quality of Commun	f Written nication
6865				



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