MARK SCHEME for the October/November 2008 question paper

9713 APPLIED ICT

9713/01

Paper 1 (Written A), maximum raw mark 80

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

• CIE will not enter into discussions or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the October/November 2008 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.



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	Page 2		Mark Scheme	Syllabus	Paper
			GCE A/AS LEVEL – October/November 2008	9713	01
1	(a)	Type up Import in Connect Connect	om: ord processor/DTP story on laptop nages from digital camera/phone laptop to internet to internet using mobile phone/WIFI hotspot/hotel cont ory to editor's office	nection	[3]
	(b)	Appropri Format of A digital Transfer Film neg Light is a	n: f every page is designed ate font and font size chosen chosen/leading/kerning/widows and orphans "printer's file" is created for the entire document printers file by burning a CD/or over a network atives are produced from digital files allowed to pass through the film negatives to expose th ge is transferred from the negative to the plate	e printing plate	[2]
	(c)	(Electron Which br Signal is The digit A new pl	om: Itellite equipment hic) Signals are used to send the pages (up to satellite) roadcasts the signal to each printing plant received by the antenna and passed over to Compute al signal is changed to a laser beam ate is created e is then loaded on to the printing press		nent [3]
2	(a)	Kept sec Fairly an Processe Adequate Accurate Not kept Processe Not trans	m, customer data must be: sure d lawfully processed ed for limited purposes e, relevant and not excessive e and up to date longer than necessary ed in accordance with the individual's rights sferred to countries outside that country unless it has a al interests of the individual or another person	dequate protecti	on for the [4]
	(b)	Data mig address It could b	om: ses, who are not supposed to, could see the information ght be inaccurate/not up to date and e.g. products could be possible to build up detailed files on people without f ald be sold to other companies without the data subject	d be sent to the v	-

Data could be sold to other companies without the data subject's permission Data could be used for purposes other than those it was collected for

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	Page 3		Mark Scheme		Paper	
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(Increa Some Some Increa Some There There Techn	sed unemployment for so sed employment for tech checkout operators will h checkout operators will b sed employment for van workers may have to/will will be the opportunity to will be flexible working ho	nical staff have a more menial role – in the be promoted as office staff drivers have the opportunity – to go pa job share ours v be able to work from home		[6	
3 (a) Four from: The robot stores the process in its memory Light sensor detects presence of hardware Processor initiates process Motors move arm into position Grabber is used to hold hardware Microprocessor uses data from pressure sensor Motors move arm to lift weight onto lorry The robot uses sensors to make sure it moves		of hardware are pressure sensor to ensure grip onto lorry		[4		
(paying They o They o Health Safety Can lit Greate	nitial expenditure it's chea a human an work for long periods vork continuously as they issues reduced for work issues reduced for work	/ don't strike/take holidays/have ers ers numan/more than one human m	shift changes		
(Microp Deper	rs are needed to monitor processor compares the t	temperature (continuously) emperature with a preset value essor causes the fan motor to s	-	down/fan [2	
4 (Test e Using Using		a which is acceptable/valid rong type/either end of the rang s to test CAL system	je	[3	

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(b) Six from:

The teacher is in control of the whole learning process Computers make lessons more interesting/entertaining Computers make lessons more varied Internet allows students to investigate ideas Internet allows students to carry out research Neatness of students work makes it easier for teacher to mark Students can work at own pace Teacher can use internet for lesson planning Teacher can use internet in lessons to control learning outcomes ICT provides more interactive learning environment ICT resources can help students with special needs Teachers have more varied teaching aids Teachers can use computer based tests Teachers can use spreadsheets to record test scores Easier to compare class/students performance Tests can be computer-marked Computers can provide feedback on tests

 (c) Systems documentation – one mark Two from: Results of systems analysis What is expected of the system Overall design decisions Test plan and test data Systems flowcharts

> Program documentation – **one** mark **Two** from: Description of the software Purpose of the software Input/output data formats File structures Program flowcharts/algorithm Program listing Notes to assist future modifications

(d) Magnetic disc – one mark
Four from:
Files will be held in an indexed sequential manner
The index will allow for direct access
Needed when accessing individual student records quickly
When a student's details are required by a teacher
The records will be held sequentially to allow for serial access
Used to process all records one after the other when producing class lists

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5 (a) Five from:

DVD-RAM

- 5 to 10 Gb memory/not as great as Blu-ray but larger than some memory sticks
- Used for recording videos and computer data
- Limited size means limited HD video use

Blu-ray

- Capacities of 25Gb, 50Gb and 100Gb/largest storage capacity of the three
- Used for storing films 25Gb equates to 2 hrs HDTV, 13hrs standard definition TV
- It is possible to playback video on a disc while simultaneously recording HD video
- Can be used for storage of PC data

Memory sticks/pen drives

- Can store up to many Gb
- Used to transport files and backup data from computer to computer

Reasoned conclusion – one mark

(b) Six from:

Phone conferencing

Everyone agrees a time

The conference is booked

- At the agreed time everyone dials a common number
- Enters a PIN to join conference

Everyone can hear but not see everyone else

Need a touchtone phone

Phones may be connected to a bridge

Video conferencing

Need computer, headset/microphone, (speakers), video/web cam Everyone logs onto internet

Run video conferencing software

Everyone can see and hear everyone else

(c) Three from:

Appointments are easier to organise Reminders of appointments can be set automatically Makes it easier to retrieve/phone client phone numbers Use project development software to keep plan of action for each client Can spread out appointments throughout the week Can keep in touch with clients/other workers using email Can normally access emails wherever they are

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(d) Six from:

Benefits for firm

Don't have to spend so much on air conditioning/heating

Don't have to rent or build large offices/can build or rent smaller offices

Don't have to pay travelling expenses for conferences (video conferences will be used) Greater income from:

Increased productivity due to more content workforce

Improved motivation

Skills retention

Flexible staffing

Improved customer service.

Benefits for accountants

Don't have to spend money on fuel/transport travelling to work

Time is not wasted travelling/more free time because of less travelling

Don't have the stress of travelling to work in rush hour

Can spend more time with their family/can arrange their work schedule to suit themselves

Drawbacks for accountants

Miss the personal contact with colleagues/more difficult to discuss ideas with colleagues Home based telework is inappropriate for some people

Many homes are not well equipped for some kinds of telework

Drawbacks for firm

Difficult to keep track of projects/workers

Have to subsidise workers computers

Some companies have management systems and cultures that are not (yet) well adapted to the flexibility

Not all tasks are best performed in a self managing environment

Reasoned conclusion - one mark

(e) Three from:

They could advertise on the internet using a website They could use a large screen multimedia presentation They could get posters printed Produce their own flyers They could use emails

Three from:

Customers would have to have a computer and be connected to the internet to see websites/ don't need to for presentations/posters/flyers

Large initial cost for website/can be expensive to maintain/low cost for other methods Can't be certain everybody in a particular area would see advertising unless using flyers Posters/presentations can only be seen in a limited number of places

Flyers might seem old fashioned/presentations/websites create better impression with customers

Flyers/posters are not interactive, presentations/websites have multimedia features Websites and presentations are easier to update as you don't have to reprint a lot of copies A much wider area/potential customer base is covered by using a website

Emails may be mistaken for spam

Reasoned conclusion - one mark

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