

Mark Scheme Summer 2007

IGCSE

IGCSE ICT (4385)

Edexcel is one of the leading examining and awarding bodies in the UK and throughout the world. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers.

Through a network of UK and overseas offices, Edexcel's centres receive the support they need to help them deliver their education and training programmes to learners.

For further information please call our Customer Services on 0870 240 9800, or visit our website at www.edexcel.org.uk.

Summer 2007

All the material in this publication is copyright
© Edexcel Ltd 2007

Contents

1.	4385/1F	5
2.	4385/2H	11

Paper 1F

1. (a) Pointers
Menus
Icons
Windows 4
- (b) Menu driven
Command line 2
- (c) Any two correct responses from:
Brighter / more colourful
Easier to use / control
No reading / typing needed
Only needs a mouse / trackball to make it work
Animations / on screen characters giving help / instructions 2

Total 8 marks

2. DVD-RW / hard disk
CD-RW / Flash memory / DVD-RW
Hard disk
Flash memory / CD-RW / DVD-RW 4

Total 4 marks

3. (a) 7 1
- (b) 6 1
- (c) Fields contain items of information / example
Records contain fields / example 2
- (d) Addition: New type of good being stocked
Deletion: Type of good being discontinued, NOT sold out.
Amendment: Change to stock level / location 3
- (e) Price may change, bar code is printed on product / hard to change.
Bar code put on by manufacturer, not shop / warehouse 2
- (f) Easier to read / understand 1
- (g) Accept any answer which would work. e.g.

g(i)	g(ii)
Bar Code	= 5010654776657 OR 5010654477626
Stock Code	= tvp36-pa OR tvp42-pa
Stock Code	contains tvp
Name	= 36-inch plasma TV OR 42-inch plasma TV
Name	contains plasma

(1) for a suitable field; (1) for a workable condition
NOT answers based on Aisle, Rack or Stock Level.

Total 12 marks

4. Answers may include:

Web site

A. open 24 - 7 / stock availability / delivery times can be seen / order tracking

D. fears about scam sites / hacking / credit card fraud

6

Post

A. can prove delivery / signed for / have hard copy of order

D. slow compared to other methods / need to buy stamps / go to post box

Telephone

A. can discuss order / equipment / get advice / can negotiate price / delivery time

D. only open office hours / may end up at call centre / automated answers / long call can be expensive.

Total 6 marks

5. (a) A single binary digit / number can be 1 or 0

2

(b) 8
1024

2

(c) one

1

(d) pictures / table / any reasonable non-character data type statement of where the item is.

2

Total 7 marks

6. (a) modem

1

(b) router

1

(c) Telephone line / any telecommunications link or medium.

1

(d) The Internet / any named part of the Internet / another home network

1

(e) Any two correct responses from:

Browser software / Internet Explorer / named browser

Communications software / ISP (connection) software / named ISP software.

Network operating system

Modem / router driver

2

Total 6 marks

7. (a) (i) Any two correct responses from:
 files change frequently
 max of 1 day's work will be lost
 in the event of a 'plausible named problem' 2
- (ii) time outside of school hours.
 so work files will not be in use at that time. 2
- (b) B Reinstall the operating system
 D Rebuild the network connections
 A Run backup software to reload the work files over the network 3

Total 7 marks

8. (a) Any three correct responses from:
 programme screens / captures as background
 programme music / sound effects
 programme colour scheme
 programme emblem / logo
 programme characters / speech 3
- (b) Any three correct responses from:
 forums (1); to post messages about programme / news (1)
 (hot) link / e-mail link to TV company / retailers (1); for fans to
 contact them / get info / buy CDs, DVDs / see latest news (1)
 software distribution method (1); to download clips / trailers (1)
 video streaming (1) ; to watch clips / trailers (1)
 bulletin board (1); for fans to read the latest news about the
 programme (1) 6

Total 9 marks

9. (a) light / IR / radiation / mass / weight / pressure 1
- (b) Answers may include:
 piston / arm / rod / air jet (1); to push bottle off belt (1)
 OR
 grab / clamp / net (1); to lift bottle from belt (1) 2
- (c) Preset / stored value(s)
 compare with sensor reading
 decision to reject / allow 3
- (d) time / distance from measurement area to reject area /
 bottle counting 1

Total 7 marks

10. (a) Award one mark for each of the following to a max of 5 marks
- Title
 - Time
 - Grid reference / ID / grid diagram showing square location
 - Tally for each of 4 snail types
 - Name / ID / signature of student
 - Looks like a form max
 - Instructions 5
- (b) Less storage space needed
- Less data entry errors / easier data entry
- Easier to validate 3
- Total 8 marks**
11. (a) Any two correct responses from:
- scanner may be damaged
 - new users will need to store fingerprints first
 - guest users will not be in fingerprint database 2
- (b) Any two correct responses from:
- palm / hand print scanner
 - voice recognition
 - facial recognition / scanning
 - Iris scanning 2
- (c) (i) use of an algorithm / key
- to change (appearance of) file contents 2
- (ii) access levels / password on file 1
- Total 7 marks**
12. (a) select C2 - C7 / C1 - C7 / column C
- format as text
- OR
- put speech marks in front of the shoe sizes as she types them in (2) 2
- (b) (i) B2 - B7 / stock code(s) 1
- (ii) Any two correct responses from:
- each type must link to a database record
 - code is the only unique item for each shoe type
 - columns in sheet equal fields in database 2
- (c) (i) D2 (1) < E2 (1)
- OR
- E2 (1) > D2 (1) 2
- (ii) F2 (1) - D2 (1) 2
- (iii) " " / a blank space / 0 / other suitable message
- NOT nothing 1
- Total 10 marks**

13. (a) Any two correct responses from:
malicious program / software
which damages / steals
files / data NOT hardware / computer
PLUS prevented by anti-virus software 3
- (b) Any two correct responses from:
program / software which records / reads
actions / keystrokes / personal data
sends information somewhere else
PLUS prevented by anti-virus software 3
- (c) Any two correct responses from:
a type of virus/ arrives in e-mail
uses computer's e-mail list
to send copies of itself
PLUS prevented by anti-virus software 3

Paper 2H

1a. Answers may include:

- programme screens/captures/pictures
- programme music/sound effects
- programme colour scheme
- programme emblem/logo
- programme characters/actors, details of biography
- programme speech
- programme scripts/plots/synopsis/review

Max 3 marks

b. Answers may include:

- Forums 1 mark
- To post messages about programme/news 1 mark

- Chat room 1 mark
- To discuss programme 1 mark

(Hot) Link/e-mail link to TV company/retailers/actors/for newsletter
1 mark

For fans to contact them /get info/buy CDs, DVDs/see latest news 1 mark

Software distribution method 1 mark
To download clips / trailers 1 mark

Video streaming 1 mark
To watch clips / trailers 1 mark

Bulletin board 1 mark
For fans to read the latest news about the programme 1 mark

Shop / e-commerce 1 mark
for buying programme related items 1 mark

Quiz / competition 1 mark
Based on programme 1 mark

Max 6 marks

Total 9 marks

2a. light/IR/radiation/mass/weight/pressure/optical 1 mark

b. Answers may include:

piston/arm/rod/air jet 1 mark

to push bottle off belt 1 mark

grab/clamp/net 1 mark

to lift bottle from belt 1 mark

trapdoor in belt 1 mark

opens under bottle 1 mark

Accept other plausible mechanisms.

c. Look for:

Preset / stored value(s) 1 mark

compare with sensor reading 1 mark

decision to reject / allow 1 mark

d. Time / distance from measurement area to reject area. / Bottle counting /

position on the belt 1 mark

Total 7 marks.

3a. Award one mark for each of the following to a maximum of 5 marks

Title

Time

Grid reference / ID / grid diagram showing square location

Tally for each of 4 snail types

Name / ID / signature of student

Instructions

If a screen form, Max 3 marks (no buttons, drop downs, etc.)

5
Marks

b. Less storage space needed

Less data entry errors / easier data entry

Faster data entry

Easier to validate

Easy to remember

3
marks

Total 8 marks

4a. Answers may include:
scanner may be damaged
new users will need to store fingerprints first
guest users will not be in fingerprint database
damaged fingerprint
disabled user

Maximum 2 marks

b. Answers may include:
signature recognition
palm / hand print scanner
voice recognition
facial recognition / scanning
Iris / eye / retina scanning
Maximum 2 marks

c. (i) use of an algorithm / key NOT coding
to change (appearance of) file contents
2 marks
(ii) access levels / password (on file) 1 mark
Total 7 marks

5a. Select C2 - C7 / C1 - C7 / column C 1 mark
Format as text 1 mark
OR

Put speech marks in front of the shoes sizes as she types them in. 2 marks

b. (i) B2 - B7 / stock code(s) 1 mark

(ii) Any 2 of the following:
each type must link to a database record 1 mark
link to key field 1 mark
code is the only unique item for each shoe type 1 mark
columns in sheet equal fields in database 1 mark
Maximum 2 marks

c. (i) D2 < E2 OR E2 > D2
1 mark 1mark

(ii) F2 - D2
1 mark 1 mark

(iii) " " /a blank space/0/other suitable message. NOT nothing/false
1 mark

Total 10 marks

6a. Answers may include:

Malicious program / software which damages / steals / disrupts 1 mark
files / data / software NOT hardware / computer 1 mark

Max 2 marks

prevented by anti-virus software 1 mark

b. Answers may include:

program/software which records/reads, actions/keystrokes/personal data 1 mark
sends information somewhere else 1 mark

Max 2 marks

prevented by anti-spyware software 1 mark

c. Answers may include:

A type of virus/ arrives in e-mail 1 mark

uses computer's e-mail list 1 mark

to send copies of itself 1 mark

Max 2 marks

prevented by anti-virus software 1 mark

Total 9 marks

Total for common section 50 marks.

Higher section.

7a. Answers must be related to a word processor. Answers may include.

Windows. Re-sizable / independent area of screen used to display a document.

Icons. Symbol / small picture / button making a link to/ containing information about a separate section of the WP.

Menus. Drop down / pop-up list showing / allowing selection of possible actions such as spell check.

Pointers. The mouse cursor, used to select W, I, M, text, other reasonable.

4 marks

b. Menu driven

Starting screen displays a menu / list of alternatives / options / choices 1

selection displays sub menu or starts a program 1

Command line / CLI / DOS

Commands typed in 1

Syntax / spelling / symbols must be exact 1

Commands run programs 1

Max 2

Marks are for descriptions which match the interface names.

Total 8 marks

8a. Answers may include:

Flash is slower than RAM therefore the machine would slow down

Motherboards / memory slots would have to be redesigned

Flash memory designs are not standardised as RAM chips are

2 x 1 mark for brief answer OR 2 marks for an expanded answer

b. Look for the ideas.

Flash is EPROM / does not lose its contents if power goes off.

Therefore computer could be switched off / back on and continue where it was.

Flash is smaller

Therefore can have more memory in same space / use smaller box.

Max 2 marks

Total 4 marks

9a. Look for the following ideas.

Bar code is unique worldwide

Bar code needed to re-order / refer to suppliers

Stock code is internal to the company

Stock code needed for sales / customers / workers

Max 3

b. first 3 letters / example = TV type

2 digits / example = screen size

last 2 letters / example = manufacturer / something sensible

3 marks

c. Stock level , < 30 2 marks

d. Name 20-inch combined TV / DVD OR similar PLUS stock level 50 1

Bar Code 3629879 565728 1

Stock Code tvd20-ss 1

Row 6 PLUS rack 6/7/8/9/ 1

Total 12 marks

10 a. Answers must be for company as described, not a shop.

Answers may include:

Web site.

Less staff.

Lower costs with reason

Automated credit card validation.

Easier to process payment

Automated responses / order tracking.

Less transcribing so less errors.

Automatic record of order

Post.

Hard copy of order in case of queries.

Less time pressure to get orders out.

Card checks done days after order so more likely to pick up recent card theft / fraud.

Telephone.

Chance to sell extra goods.

Customer pays the telephone bill.

Can advise of delays / stock shortage / last minute changes to goods.

Can negotiate delivery date / time.

Personal touch

Max 2 marks

b. Answers may include:

Web site.

Problem of keeping site secure.

Costs of I.T staff / equipment to run the site.

Technical problems with site would lose sales

Post.

Cost of post room staff.

Problems of incomplete / illegible / lost order forms.

More transcriptions allow more errors.

Cost of providing Freepost address.

Out of date catalogues

Cost of catalogues

Telephone.

Cost of telephone staff.

More transcriptions allow more errors.

Cost of providing Freephone number.

Problems with mishearing orders.

Problem with engaged number

Max 4 marks, 2 x 2

Total 6 marks.

11a. ASCII is one byte per character, unicode is two bytes per character. 1

ASCII only has 255 characters / unicode has 65025 / 255×255 1

b. as a bitmap

1 / number of bytes per pixel

as continuous memory locations

in a picture / graphics buffer / special memory area

max 2

c. Refers to bits per pixel / screen element 1

Higher number of bits means more colours can be displayed / calculation / example

1

NOT resolution

d. Answers may include:

slower data movement,

2 bytes / 16 bits in a word / at one time, compared to 64 bits

Processor / named part of, can only use numbers up to 65025 / smaller numbers.

calculations take longer / less accurate

Addresses smaller numbers / can look at less addresses / files / memory locations

can use less memory / smaller number of files / smaller hard drive

2 marks

12a. router
hub / switch
2 marks

b. Link2 higher bandwidth / capacity / faster data flow than Link 1
Link 2 shared by multiple subscribers to ISP, Link 1 only by one house.
Less / no interference
2 marks

c. A URL / (IP) address for the web page. 1

Total 5 marks

13a. Look for the ideas:
Frequency of backup daily / weekly
with a reason. so only 1 day / 1 week of work lost

Time of backup out of school hours
So files / processor not in use

Time for backup
any calculation / estimate of time needed

Storage space needed / bigger than 10 Gb
any calculation dealing with number of backups * 10 GB / compression.

Location of backup
Safe / offsite
Max 5 marks

b. Keep a second / duplicate copy on the backup server / on a DVD / on CDs /
somewhere sensible 1
clip art not likely to change much / can add new pictures to backup 1

Total 7 marks

Total for Higher Section 50 Marks

For more information on Edexcel qualifications, please visit www.edexcel.org.uk/qualifications
Alternatively, you can contact Customer Services at www.edexcel.org.uk/ask or on 0870 240 9800

Edexcel Limited. Registered in England and Wales no.4496750
Registered Office: One90 High Holborn, London, WC1V 7BH