

IGCSE ICT 4385, NOVEMBER 2005 MARK SCHEME

Paper 2H

1. (a) any **three** from:
spell check (1) prevent spelling errors being published (1);
hyperlink check (1) ensure navigation works correctly (1);
verify content (1) to ensure correct information (1);
try different browsers / colour settings / screen resolutions (1)
to see if site displays correctly (1). 6
- (b) any **two** from:
counter (1) show how many visits the site has had (1);
email address / link (1) to get comment from users (1);
online form / questionnaire (1) to get feedback from users (1). 4
- Total 10 marks**
2. (a) vehicle colour: text (1) / 3 (1) / example shows encoded text (1)
next service date: date (1) / 6 (1) / example shows formatted
date (1)
telephone: text (1) / 11 (1) / 11 characters + spaces in example /
spaces and leading 0 show it is not a number (1) 9
- (b) for each field, award (1) for an appropriate validation type
award (1) for a description fitting that type
DO NOT award marks for field names alone
DO NOT award marks for validation types which do not fit the
chosen field. 4
- Total 13 marks**
3. (a) data items / slips collected over a period (1)
then processed at one go (1) 2
- (b) better control over stock / faster turnaround of orders (1) 1
- (c) needs less space for storage / display (1)
faster / easier data entry (1)
fewer errors / easier validation (1) 3
- (d) verification (1)
to prevent wrong items being sent (1) 2
- Total 8 marks**

11. (a)

Service	Company advantage	Customer advantage
email / contact form	no need to man phones	24 / 7 access
FAQ / customer support pages	cuts down on support staff requirement	no need for phone calls
sign ups for newsletter / special offers...	gives targeted advertising	receives offers, upgrade info etc.
download of patches, drivers	cheaper than sending out disks	24 / 7 access / no postal cost / get latest software versions
search facility	present active pages / create specialised pages / present tailored info to client	easy to find what you need

any 2 for (3) each 6

- (b) function: join similar sites / companies / groups (1)
 company: adverts / referrals from other sites (1)
 customer: links to similar products / companies (1) 3

Total 9 marks

12. (a) using functions / formulae / calculations (1)
 to show how something will behave (1) 2

- (b) any **three** from:
 less materials / workers / cost to try out improvements (1)
 faster to set up / change improvements (1)
 easy to try out / change road lay-outs (1)
 no traffic disruption whilst trying out improvements (1) 3

- (c) cannot be certain that traffic will behave as predicted / traffic has random variability (1) 1

- (d) Method: any technical presentation e.g. graphs/spreadsheets (1)
 Justification: should match method and involve need to present facts and figures (1) 2

- (e) Method: non-technical presentation e.g. diagrams/multimedia (1)
 Justification: should match method and involve function rather than technical detail (1) 2

Total 10 marks

6. Spam: unwanted adverts / messages / emails / mass mailing / mailing sent to many people

Reduced by: filter ; change email address ; obscure or randomised email name

Virus: pieces of code / programs; run unauthorised; cause damage / spread to other computers

Reduced by: anti-virus software ; not downloading or running attachments

max (2) per section

6

Total 6 marks

7. (a) any **three** from:

camera to take pictures (1)

microphone to record / pick up speech (1)

comms / video conferencing software to handle the comms (1)

camera driver to control the camera (1)

3

- (b) any **two** from:

can be used to send files / attachments (1)

receiving staff don't need to be in office when message is sent (1)

record can be kept of messages (1)

multiple mailing facility (1)

2

- (c) faster / instant response; two-way / real time communication (1)

1

Total 6 marks

8. readings sent via ADC

at regular intervals

controlled by computer / microprocessor

recorded on spreadsheet

saved on hard drive / as file

open spreadsheet file

select cells / readings

create graph / paste into graph package

close spreadsheet file

open DTP package / file

copy and paste / save and import graph

adjust / resize / position graph

save DTP file

max (3) from each section

8

Total 8 marks

9. each picture = $1000000 \times 2 = 2000000$ bytes (1)
 64 megabytes = $64000000 \times 1.024 \times 1.024$ bytes (1)
 = 67108864 bytes (1)
 $67108864 / 2000000 = 33.55$ (1) 4

Total 4 marks

10. A= transaction file (1)
 B= update / merge (1)
 C= grandfather file (1)
 D= transaction file (1)
 E= father file (1)
 F= update / merge (1)
 G= son file (1) 7

Total 7 marks

11. (a) security problems / signal can be picked up outside building (1)
 speed / radio has lower bandwidth / slower than cable (1) 2
- (b) security: use encryption (1) or
 speed: multiple radio channels / two or more NICs per machine (1) 1
- (c) ASDL / ISDN modem (1) to convert computer signals into telecom
 signals and or vice versa (1)
 router (1) enable sharing / link several computers to one
 telecoms line / handle multiple IP addresses (1) 4

Total 7 marks

12. (a) SUM (1) (F2:F6) (1) 2
- (b) = B2 (1) * 1.5 (1) 2
- (c) + (1) C3 (1) * E3 (1) 3
- (d) (i) IF (D2) (1) > 48 (1) then "over" (1) else "not over" / " " (1) 4
- (ii) select G2 and copy; then select G3 to G6 and paste / fill down
 (1) 1

Total 12 marks

TOTAL MARKS FOR PAPER: 100