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 x 2 = 2000000 bytes **(1)**
    64 megabytes = 64000000 x 1.024 x 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