OCR
RECOGNISING ACHIEVEMENT

GCE

Mark Scheme for the Components

January 2008

CONTENTS

Advanced GCE ICT (Double Award)(H715)

Advanced GCE ICT (H515)

Advanced Subsidiary GCE ICT (Double Award)(H315)

Advanced Subsidiary GCE ICT (H115)

MARK SCHEMES ON THE UNITS

G041 How organisations use ICT

MARKING INSTRUCTIONS FOR APPLIED GCE IN ICT EXAMINERS

These instructions supplement the general marking guidelines for ICT Examiners. Where they differ from the general guidelines, the instructions given here must be followed.

Standardisation

Before the standardisation meeting, mark, in pencil, at least ten scripts from a range of centres. Note any issues requiring discussion or clarification and raise these at the appropriate point during the standardisation meeting.

During the standardisation meeting, make careful note of any additions or changes to the mark scheme so that you can use it to mark the photocopied scripts provided.

At the end of the meeting (or soon after it) you will be provided with a final version of the mark scheme. You should destroy any previous version and mark strictly in accordance with the final mark scheme.

As soon as possible after the standardisation meeting, mark ten scripts using red ink and send them to your Team Leader.

Do not continue marking until your Team Leader tells you to do so. S/he will give you feedback on any aspects of your marking that needs attention. At this stage your Team Leader may request a further sample of ten scripts. Again, you should not mark any further scripts until you are told you can.

If your Team Leader's marks for these **standardisation** scripts differ from your own, enter her/his marks for these scripts on the appropriate MS2.

When you are told you can continue marking, continue to apply the mark scheme as carefully and accurately as you did for the sample.

Take careful note of the batch dates and organise your marking so that you can meet these deadlines.

Marking - general

Only mark in red ink.

Mark strictly to the mark scheme agreed at the standardisation meeting.

If you find an answer that you feel is correct but which does not fit any of the answers on the mark scheme, contact your Team Leader for advice.

Marking tasks

All papers allow marks for the pre-release tasks:

- indicate clearly with a tick (✓) where each mark is awarded – if appropriate
  - count the number of ticks and enter the number in the Tasks boxes on the front of the question paper.

- graded response tasks -indicate clearly how a mark band has been achieved
  - AO4 + 1/2/3 – identifies mark for evaluation (1-3 marks)
  - CS – response has been applied to case study
  - P/E/+/- - identifies points/expansions, positive and negative points
  - H/M/L + mark – identifies mark band and mark for content
  - add AO4 and H/M/L mark together to get total mark for the task and enter in the Tasks boxes on the front of the question paper

- indicate that each page has been looked at by putting a diagonal line across the bottom right-hand corner of any page where no marks are awarded

Marking the questions

Only answers to questions written on the Question Paper should be marked.

Indicate clearly with a tick **exactly** where each mark is awarded. The number of ticks must equal the number of marks.

Write the number of marks from the question paper in the right-hand margin level with the bottom of the lines/space for the answer.

Make sure you do not give marks twice for the same points or exceed the number of marks available. Write **Max** next to the last tick to indicate where the mark limit for the question/part question has been met, especially if there are further points worthy of credit.

Total the marks for the whole question (**not** part questions) and write this in a circle, in the right-hand margin of the question paper, at the end of the question. There should be a circled mark for each question.

Mark any answer that is clearly wrong with a cross (✗).

Draw a line on the right-hand side of any answer that does not contain any points worthy of credit and/or use the abbreviations provided. It must be clear that you have read **all** the answers given.

Do not write anything on the question paper or pre-released tasks other than the approved abbreviations given over the page.

^	Something vital to the mark point has been omitted.
BOD	Benefit of the doubt given.
NBOD	Benefit of the doubt **not** given.
CON	Candidate contradicts him/herself.
NAQ	Candidate has not answered the question as set.
MTP	Candidate has missed the point of the question.
W	Candidate is working towards a mark but has not given enough to receive credit at this point.
NE	Not enough for the candidate to receive credit.
TV	Answer is too vague to receive credit.
FTC	Follow-through credit. When an earlier wrong answer has been penalised, this may be used to show that credit can now be given to a part of the script which depends on that earlier wrong answer. This avoids penalising a candidate twice for the same error, but **should only be used where specified by the PE**.
MAX	Shows that the maximum number of marks for a part-question or question has been awarded (even though the answer may contain further correct points).
R	The point repeats one already awarded credit.
JE	Candidate has *just* given enough to be awarded a mark.

Examiners may also underline the key words or phrases that contribute to the answer being worthy of credit or which confirm that the answer is wrong. However, care will be needed as candidates often use underlining to indicate an answer in pre-prepared material. Some also use red ink for this.

Transferring marks

Transfer the circled 'whole question' marks to the appropriate boxes on the front of the question paper.

Total the marks and enter this number in the Total box.

Check you have transferred and totalled the marks correctly.

Get your checker to check that
- the number of marks awarded for each task/question/part question equals the number of ticks
- task and question totals are correct
- marks are correctly transferred to the front of the question paper
- the question paper total is correct.

Transfer the totals onto the Centre MS2, taking care that the correct mark is written beside each candidate and that the lozenges are filled in correctly.

Get your checker to check that you have completed the MS2 correctly.

Send MS2s to Cambridge as soon as they are ready using the labels provided– you do not need to wait for the batch dates.

Never send scripts and MS2s in the same package.

If you are unsure what to do at any stage:

- look in the Instructions for Examiners handbook
- look at the Marking Guidelines for ICT Examiners
- contact your Team Leader, Principal Examiner, Chief Examiner or the ICT Subject Team for advice.

There are 100 marks available for this test. They are allocated as follows:

- Tasks 2 and 3   30
- Section A of the test paper 50
- Section B of the test paper 20

Task 2

1 mark each for boxes labelled
- School/Customer
- Sales Manager
- Order Processing (Clerk)
- Warehouse (Manager)
- Accounts (Clerk/Department)

plus labelled arrows to show the following information flows (1 mark each) and methods (1 mark each)
Max 15 marks.

Note:
- Arrows should only be awarded points if they are drawn to and from the correct boxes.
- Marks may be awarded for unconventional diagrams provided they isolate the senders and receivers of information.
- Do not award marks for flow diagrams or series of text boxes linked by arrows.
- Marks cannot be awarded for 'How' if the information is not identified/is incorrect but can be awarded if information is essentially correct but vague or incomplete.
- Labels should not be awarded marks if they are contained within the description of a process.
- If lines cross, mark labels as long as it is clear where each arrow goes.
- Marks should only be awarded for labels that can be unambiguously linked to a single arrow.
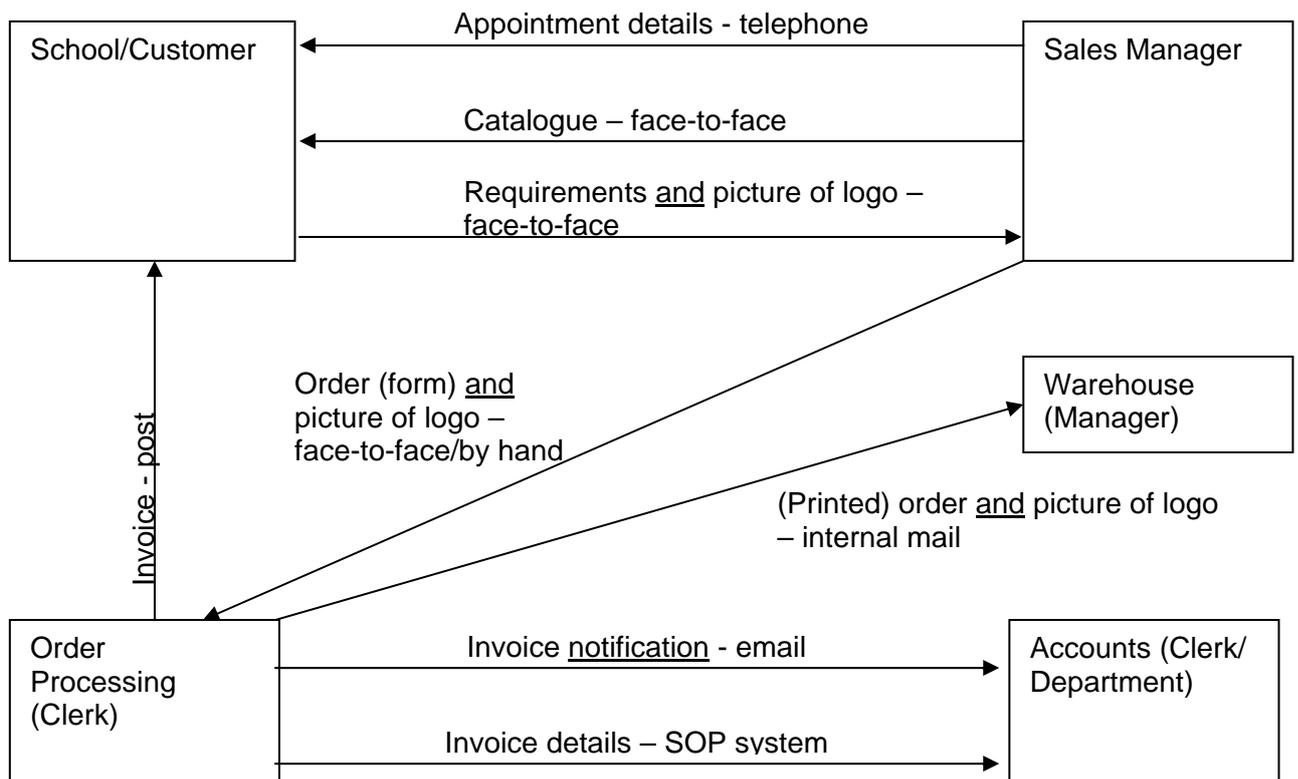
Task 3

AO4 is assessed through this task.

AO4 Marks	Guidance
3	A strength and a weakness in the method(s) used identified or suggestions for improving own performance.
2	A strength <u>or</u> weakness in the method(s) used identified.
1	Some comment made on the method(s) used.

The quality of written communication is assessed through this task.
Tiered response based on:

Coded	Marks	Guidance
H	9-12	Candidates will show a clear understanding of the task with detailed explanations that include both positive **and** negative impacts of working from home. **Most** examples are applied to the organisation and staff of Logos R Us. The information will be presented in a structured and coherent form. There will be few if any errors in spelling, grammar and punctuation. Any technical terms will be used appropriately and correctly.
M	5-8	Candidates will show an understanding of the task with some explanations that may include positive **and/or** negative impacts of working from home. **Some** examples are applied to the organisation and staff of Logos R Us. The information will be presented in a structured format. There may be occasional errors in spelling, grammar and punctuation. Any technical terms will be mainly correct.
L	1-4	Candidates will demonstrate a limited understanding of the task. Information may be a list of points, with little or no explanations or application to Logos R Us. Information will be poorly expressed and there will be a limited, if any, use of technical terms. Errors of grammar, punctuation and spelling may be intrusive.

To include consideration of:

- change in motivation for those no longer supervised directly

- reduced social interaction with colleagues

- increased interaction with family and friends

- more flexibility – can work round family commitments

- lack of distinction between work and leisure time – may become workaholic

- no-one to bounce ideas off (eg design team)

- staff travel costs and travel time reduced

- technical problems – no technician at home to fix

- possibility of hot desking

- reduction in number of workstations required

- possibility of smaller premises

- reduction in utilities costs

- need to pay for equipment to be used in homes

- need to pay communication costs (and possibly contribute to cost of other utilities)

- need to carry out health and safety assessments of employees' home workstation

- no direct supervision – may need to provide incentives

- responsibility for equipment – whose is it?

- responsibility for confidential data

- additional insurance costs for company.

NB: Specific staff/departments/tasks must be mentioned to achieve M or H.

Annotation:
- CS – response has been applied to case study
- P – identifies points
- E – identifies expansions/explanations applied to the case study
- +/- - positive or negative effects **[15]**

Section A

1   distribution (1) plus **three** of
- packing garments for shipment
- putting delivery note in parcel
- printing courier waybills
- telephoning courier to book pickup (allow booking courier/pickup)
- handing parcels to courier

1 mark per point to max 3   **[4]**

2   Any **four** of
- managing head office LAN
- organising backups
- installing new software/hardware/upgrades
- monitoring software licences
- running a help desk
- travelling to warehouse/workshop site to solve problems

1 mark per point to max of 4   **[4]**

3   Any **two** of
- Operations Director responsible for warehouse / linked via Operations Director
- Warehouse Manager reports to Operations Director
- Operations Director reports to Managing Director
- forms part of Operations Division

1 mark per point to max of 2   **[2]**

4   **(a)**   **(i)**   Any **three** of
- item number
- size
- colour
- quantity
- logo position

1 mark per point to max of 3   **[3]**

        (ii)   A description that includes any **two** of
- order form in catalogue
- details completed by customer
- posted to order processing clerk/sales department

1 mark per point to max of 2   **[2]**

(b)   **(i)**
- description
- unit price

1 mark each   **[2]**

        (ii)   Looked up (1st) from SOP system / database (1) when item number <u>and</u> size entered (1)   **[2]**

        (iii)   Any **three** of
- customer details looked up using customer ID
- unit price multiplied by quantity
- item totals added to give sub-total
- VAT calculated
- VAT added to give total

1 mark per point to max 3   **[3]**

(c)   (Printed) order   **[1]**

(d)
- post
- internal mail

1 mark each   **[2]**

5   A description to a maximum of **10** from
        hardware
  - <u>three</u> workstations (1st) linked in peer-to-peer network (1)
  - black and white laser printer (1st) attached to warehouse assistants' workstation (1) can be used from Warehouse Manager's workstation (1)
  - dot matrix printer (1st) attached to distribution staff/third workstation (1)

        software
  - database (1st) of stock (1) of customer orders <u>and</u> delivery addresses (1) on Warehouse Manager's workstation (1)
  - word processing package (1st) <u>template</u> for delivery notes (1) <u>template</u> for positioning delivery addresses on waybills (1)

        input data
  - customer (and) order details (1st) entered by Warehouse Manager (1)
  - item number <u>and</u> quantity (1st) keyed in (1) by warehouse assistant (1)
  - size <u>and</u> colour (1st) selected from drop-down lists (1)

        outputs
  - delivery note (1st) two copies printed (1)
  - delivery addresses (1st) printed on waybills (1)
  - description of garment (1st) to verify correct item number entered (1)

        processes
  - <u>mail-merge</u> word processed template for delivery note (1st) with database of customer orders (1)
  - <u>mail-merge</u> delivery addresses from database (1st) to position on waybills (1)
  - quantity subtracted from number in stock (1st) when Remove button clicked (1) OR update stock database (1 mark only)

        To achieve maximum marks there must be at least one point from each section   **[10]**

6 **(a)** Any **two** of
- no electronic communication between sites (1) all orders must be sent by internal mail (1)
- ICT services department must travel to warehouse workshop site (1) to solve problems that occur (1) as they cannot access the systems remotely (1)
- Warehouse Manager has no access to the SOP system (1) so must keep own database of customer orders (1)
- sales department have no access to stock availability (1) because it is only on Warehouse Manager's workstation (1)
- logos are scanned in twice (1) pictures may get damaged or lost in transit (1)

Up to 2 marks each to max of 4 **[4]**

(b) **(i)** Any suitable improvement suggested and explained eg
- link two sites in a WAN (1st) so that the warehouse/workshop workstations can access the head office server (1)
- connect warehouse/workshop site to the Internet (1st) so that they can communicate by VPN and email (1)

DNA LAN

Up to **two** marks each to max of 2 **[2]**

(ii) Any **two** suitable benefits explained that match the improvement eg
- Chief Embroiderer can access logo files from SOP system (1) less chance of errors in scanned images (1)
- sales department will know what stock is available (1) less chance of disappointing customers (1)
- Warehouse Manager can access SOP system (1) less chance of errors from re-entry of data (1) less delay than using internal mail (1)
- ICT services department can maintain workstations remotely (1) saving travel time and cost (1)
- Operations Director can monitor warehouse/workshop activities (1) reducing the need to visit (1)

Up to **two** marks each to max of 4 **[4]**

(iii) A suitable problem identified that matches the improvement eg
- there may be differences between the systems (which need to be overcome)
- a server may be required on the warehouse/workshop site
- more network management may be required
- staff may need training to use new features
- additional equipment/software may be required (which costs money)
- use of Internet increases risk of hacking/viruses
- increased security may be needed

One mark each to max of 1 **[1]**

7 Any **two** of
- analyse workstations to assess/reduce risk (1st) eg look at furniture/equipment/working environment/job being done/needs of individual (1)
- ensure workstations meet minimum requirement (1st) eg adjustable chairs/suitable lighting/tilt and swivel monitors/sufficient workspace (1)
- plan employees work (1) so there are breaks or changes in activity / allow set breaks (1)
- arrange eye tests on request (1) provide spectacles if special ones needed (1)
- provide health and safety training (1st) on how to use workstations safely (1)
- give information about health and safety using VDUs to employees (1st) including steps taken to comply with regulations (1)

NB: Question asks for actions.

Up to **two** marks each to max 4 **[4]**

Section B

8   **(a)**   Any **two** of eg
- hospitals
- schools
- colleges
- libraries
- police
- fire brigade

DNA dentists/physiotherapists or similar
1 mark each to max of 2   **[2]**

   (b)   Funded/managed/controlled (1) by the government (1) through taxes (1)   **[2]**

9   **(a)**   To <u>facilitate</u> electronic communication (1) and electronic data storage (1)   **[2]**

   (b)   Any **one** of
- set up a register of approved providers (1) of encryption services (1)
- make electronic signatures (1) legally binding (1)

Up to 2 marks each to max 2   **[2]**

   (c)   Any **one** of
- they can be confident about encryption services (1) used to keep customers' personal and financial data safe (1)
- they can obtain electronic signatures on contracts (1) rather than having to send hard copies to be signed (1)

Up to 2 marks each to max 2   **[2]**

10   **(a)**   Any suitable process eg
- paper making
- glass making
- sheet steel making
- recycling

   (b)   Sensors test the product (1) compared with stored ideal values (1) if do not match (1) sends signal back to machinery (1) to make adjustment/alert (1)   **[3]**

   (c)   Any **three** of
- quality of product is higher/more consistent (1st) because of constant monitoring and adjustment (1)
- goods produced faster (1st) than manual production methods (1)
- less waste (1st) because less rejected products (1) reducing cost (1)
- <u>fewer</u> employees (1st) so lower wage bill (1)
- 24 hour production possible (1st) as does not need breaks/get tired (1)
- safer working environment (1st) because dangerous materials don't have to be handled (1)

Up to 2 marks each to max 6   **[6]**

G054 Software development

MARKING INSTRUCTIONS FOR APPLIED GCE IN ICT EXAMINERS

These instructions supplement the general marking guidelines for ICT Examiners. Where they differ from the general guidelines, the instructions given here must be followed.

Standardisation

Before the standardisation meeting, mark, in pencil, at least ten scripts from a range of centres. Note any issues requiring discussion or clarification and raise these at the appropriate point during the standardisation meeting.

During the standardisation meeting, make careful note of any additions or changes to the mark scheme so that you can use it to mark the photocopied scripts provided.

At the end of the meeting (or soon after it) you will be provided with a final version of the mark scheme. You should destroy any previous version and mark strictly in accordance with the final mark scheme.

As soon as possible after the standardisation meeting, mark ten scripts using red ink and send them to your Team Leader.

Do not continue marking until your Team Leader tells you to do so. S/he will give you feedback on any aspects of your marking that needs attention. At this stage your Team Leader may request a further sample of ten scripts. Again, you should not mark any further scripts until you are told you can.

If your Team Leader's marks for these **standardisation** scripts differ from your own, enter her/his marks for these scripts on the appropriate MS2.

When you are told you can continue marking, continue to apply the mark scheme as carefully and accurately as you did for the sample.

Take careful note of the batch dates and organise your marking so that you can meet these deadlines.

Marking - general

Only mark in red ink.

Mark strictly to the mark scheme agreed at the standardisation meeting.

If you find an answer that you feel is correct but which does not fit any of the answers on the mark scheme, contact your Team Leader for advice.

Marking tasks

All papers allow marks for the pre-release tasks:

- indicate clearly with a tick (✓) where each mark is awarded – if appropriate
  - count the number of ticks and enter the number in the Tasks boxes on the front of the question paper.

- graded response tasks -indicate clearly how a mark band has been achieved
  - AO4 + 1/2/3 – identifies mark for evaluation (1-3 marks)
  - QWC + 1/2/3 – identifies mark for QWC (1-3 marks)
  - CS – response has been applied to case study
  - P/E/+/- - identifies points/expansions, positive and negative points
  - H/M/L + mark – identifies mark band and mark for content
  - add AO4, QWC and H/M/L mark together to get total mark for the task and enter in the Tasks boxes on the front of the question paper

- indicate that each page has been looked at by putting a diagonal line across the bottom right-hand corner of any page where no marks are awarded

Marking the questions

Only answers to questions written on the Question Paper should be marked.

Indicate clearly with a tick **exactly** where each mark is awarded. The number of ticks must equal the number of marks.

Write the number of marks from the question paper in the right-hand margin level with the bottom of the lines/space for the answer.

Make sure you do not give marks twice for the same points or exceed the number of marks available. Write **Max** next to the last tick to indicate where the mark limit for the question/part question has been met, especially if there are further points worthy of credit.

Total the marks for the whole question (**not** part questions) and write this in a circle, in the right-hand margin of the question paper, at the end of the question. There should be a circled mark for each question.

Mark any answer that is clearly wrong with a cross (✗).

Draw a line on the right-hand side of any answer that does not contain any points worthy of credit and/or use the abbreviations provided. It must be clear that you have read **all** the answers given.

Do not write anything on the question paper or pre-released tasks other than the approved abbreviations given over the page.

^	Something vital to the mark point has been omitted.
BOD	Benefit of the doubt given.
NBOD	Benefit of the doubt **not** given.
CON	Candidate contradicts him/herself.
NAQ	Candidate has not answered the question as set.
MTP	Candidate has missed the point of the question.
W	Candidate is working towards a mark but has not given enough to receive credit at this point.
NE	Not enough for the candidate to receive credit.
TV	Answer is too vague to receive credit.
FTC	Follow-through credit. When an earlier wrong answer has been penalised, this may be used to show that credit can now be given to a part of the script which depends on that earlier wrong answer. This avoids penalising a candidate twice for the same error, but **should only be used where specified by the PE**.
MAX	Shows that the maximum number of marks for a part-question or question has been awarded (even though the answer may contain further correct points).
R	The point repeats one already awarded credit.
JE	Candidate has *just* given enough to be awarded a mark.

Examiners may also underline the key words or phrases that contribute to the answer being worthy of credit or which confirm that the answer is wrong. However, care will be needed as candidates often use underlining to indicate an answer in pre-prepared material. Some also use red ink for this.

Transferring marks

Transfer the circled 'whole question' marks to the appropriate boxes on the front of the question paper.

Total the marks and enter this number in the Total box.

Check you have transferred and totalled the marks correctly.

Get your checker to check that
- the number of marks awarded for each task/question/part question equals the number of ticks
- task and question totals are correct
- marks are correctly transferred to the front of the question paper
- the question paper total is correct.

Transfer the totals onto the Centre MS2, taking care that the correct mark is written beside each candidate and that the lozenges are filled in correctly.

Get your checker to check that you have completed the MS2 correctly.

Send MS2s to Cambridge as soon as they are ready using the labels provided– you do not need to wait for the batch dates.

Never send scripts and MS2s in the same package.

If you are unsure what to do at any stage:

- look in the Instructions for Examiners handbook
- look at the Marking Guidelines for ICT Examiners
- contact your Team Leader, Principal Examiner, Chief Examiner or the ICT Subject Team for advice.

There are 100 marks available for this test. They are allocated as follows:

- Tasks 2, 3 and 4 30
- Section A of the test paper   50
- Section B of the test paper   20

Task 2 (15 marks)

12 marks available for systems flowchart (See example Systems flowchart page 3)

1 mark available for identification of:
- Passenger
- Admin (Office)
- Booking system
- Frequent Flyer Records

1 mark for each correct symbol with associated flows (Max8)

Evaluation – 3 marks available

Mark	
1	Some comment on method(s) used to develop systems flowchart
2	A strength/weakness in method(s) used identified
3	A strength and weakness in method(s) used identified

Task 3 (8 marks)
1 mark for correct syntax
1 mark for all conditions given (correct use of < , =)
1 mark for each correct condition/outcome (Max 6)

Get passenger details
      CASE< frequent flyer member = Y, return flight completed = 12, return flight = Y>
          Discount = 50%
      CASE < frequent flyer member = Y, return flight completed < 12, return flight = Y>
          Discount = 10%
      CASE < frequent flyer member = Y, return flight completed < 12, return flight = N>
          Discount = 5%
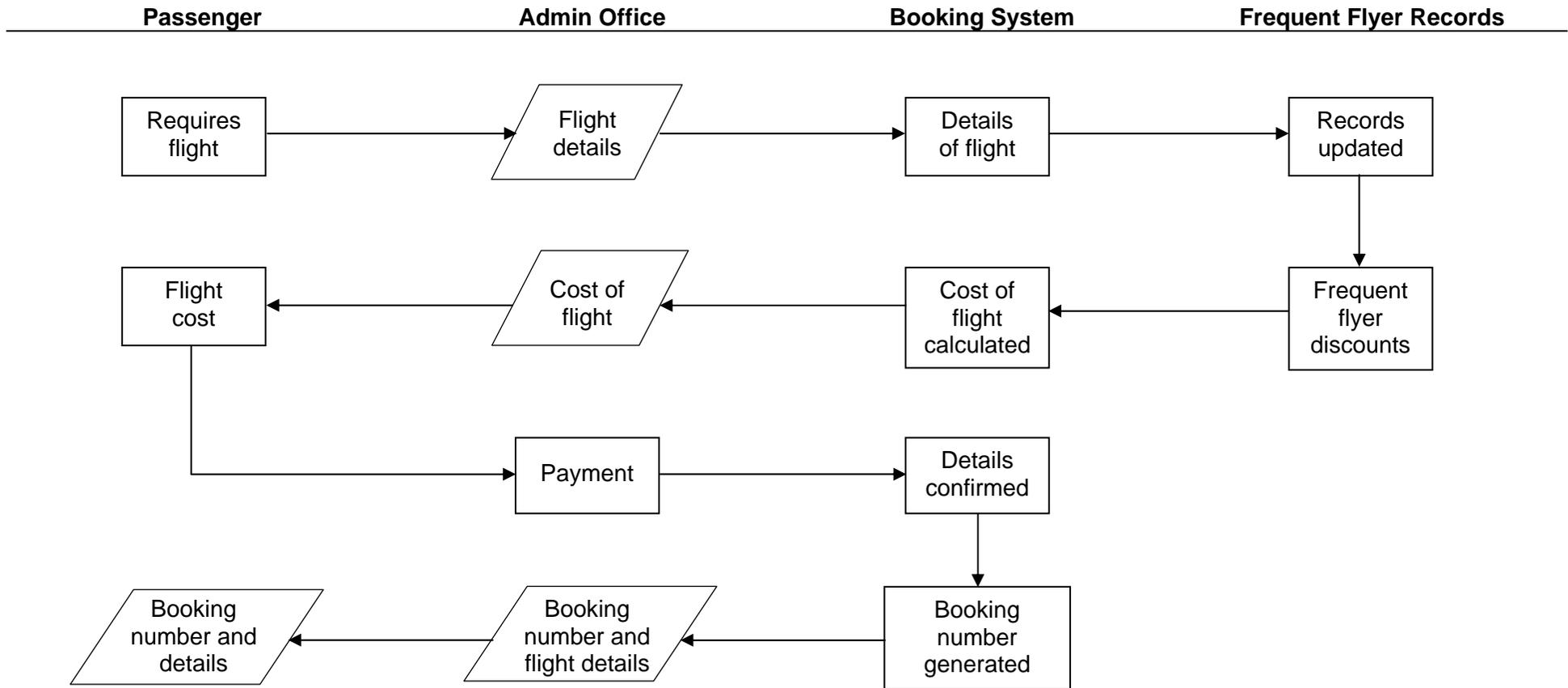   CASE < frequent flyer member = Y, return flight completed = 12, return flight = N>
          Discount = 50%
      CASE < frequent flyer member = N, return flight completed < 12, return flight = Y>
          Discount = 5%
      CASE < frequent flyer member = N, return flight completed < 12, return flight = N>
          Discount = 0%
END CASE

Task 2

Passenger	Admin Office	Booking System	Frequent Flyer Records

```
Requires          Flight            Details           Records
flight            details           of flight         updated
  │                                     │                 │
  └──────────────────┐                  └────────┐        │
                                                          ▼
Flight            Cost of           Cost of           Frequent
cost      ◄───    flight    ◄───    flight      ◄───  flyer
                                    calculated        discounts
  │
  └──────────────►  Payment  ──────► Details
                                     confirmed
                                         │
                                         ▼
Booking           Booking           Booking
number and ◄───   number and ◄───   number
details           flight details    generated
```

Task 4 (7 marks)

1 mark each for:

- Use of colour/font/white space
- Logical order of information on screen
- All data/information shown is appropriate (Passenger name, address, contact number, date/time of flight, return/single, payment details/type) with no omissions/extra data required
- Use of appropriate validation/drop down boxes/option boxes/radio buttons
- Total cost of flight
- Discounts applied
- Booking reference number

Allow input screen produced in software

Do not accept input screens that have been populated – the exception is the population of the drop down boxes.

Section A

Note: IF = Island Fly

Question		Answer	Mark
1		**One of the purposes of the proposed system is to increase the security of information held on the computers in the head office.** **Describe two other purposes of the proposed system.** Any 2 from, max 2 per point: To solve the problems caused by the current system (1) example of problems given (1) To produce reports as defined by owner of IF(1) example of reports given (1) To standardise software used in company (1) to improve sharing of stored information (1) To improve communication (1) between head office and hangar (1)	[4]
2	(a)	**One functional requirement of the proposed system is to keep a database of members of the Frequent Flyer scheme.** **Describe one other functional requirement of the proposed system that relates to the Frequent Flyer scheme.** *Any 2 from:* To update the Frequent Flyer records at time of booking a flight (1) To ensure that discounts are applied correctly (1) To ensure when members have flown 12 flights then the total number of flights is reset to 0 (1)	[2]
	(b)	**Describe the defined non-functional requirement that relates to hardware.** *Any 1 from: Max 2* To integrate the existing computers (1) in the head office and the hangar (1) To include a laptop for the owner (1) that is wireless enabled / will access the internet (1) upgrade of peripherals (1)	[2]
3	(a)	**Describe the software constraint that has been defined by Island Fly.** To use the same vendor (1) for the Operating System (1) but upgrade to meet the needs of the new system (1) To standardise software (1)	[2]
	(b)	**Describe the budget constraint that has been defined by Island Fly.** £25,000 (1) to include cost of hardware and software (1)	[2]

Question	Answer	Mark
4	**Describe two problems, caused by the current system at Island Fly, that are having a direct impact on staff who work in the hangar.** *Max 2 per description, any 2 from:* Number of passengers booked on a flight (1st mark) exceeds the number able to be carried on the aeroplane ready to be used (1) Aeroplanes being chartered to customers (1st mark) no alternative aeroplane available (1) Delays in flights (1st mark) causes delays in doing maintenance on aeroplanes on scheduled flights (1) Information about aeroplanes is disorganised (1st mark) leading to information being lost or misplaced (1)	[4]
5	**Identify and explain two security methods that could be implemented at Island Fly.** *Max 3 per description* Access levels (1st mark) different groups of staff/end users within IF(1) would have access to data (1) dependant on the job role they do (1) eg admin staff need access to all passenger details (1) User names/passwords (1st mark) used to determine access rights (1) can be used to show audit trails (1) who has accessed ie data/websites (1) reduces risk of unauthorised access to system (1) must be changed regularly (1) not a recognised/memorable word/made up of letters and numbers (1) Physical security measures (1st mark) eg locks on windows/doors (1) swipe cards (1) keyboard locks (1) Back-up copies (1st mark) regularly made (1) held/taken off- site (1) example of back-up method eg incremental (1) example of use (1) Software security measures (1st mark) eg firewalls set on servers (1) to control files allowed on system (1) antivirus software (1) to detect/block suspicious files/hackers (1)	[6]
6	**Describe one advantage and one disadvantage of using observation as an investigation method in the head office of Island Fly.** *Max 2 for advantage and 2 for disadvantage eg* **Advantage** Can experience all aspects of the current system (1) easily identify where any bottle-necks occur (1) **Disadvantage** Users may put on a performance during observation (1) problems with current system may not occur (1) difficult to observe some impacts of a system (1)	[4]

7	**Explain the advantages and disadvantages to Island Fly of recommending a customised off-the-shelf software package rather than a bespoke software package.**	**[10]**

Band	Mark Range	
H	8 – 10	Candidates will show a clear understanding of the question and include advantages **and** disadvantages with **detailed** explanation. Examples relate to IF. The information will be presented in a structured and coherent form. There will be few if any errors in spelling, grammar and punctuation. Technical terms will be used appropriately and correctly.
M	4– 7	Candidates will show an understanding of the question and may include advantages **or** disadvantages with some explanations. Some examples will relate to IF. The information will be presented in a structured format. There may be occasional errors in spelling, grammar and punctuation. Technical terms will be mainly correct.
L	1 – 3	Candidates will demonstrate a limited understanding of the question. Information may be a list of points, with little or no explanations. Information will be poorly expressed and there will be a limited, if any, use of technical terms. Errors of grammar, punctuation and spelling may be intrusive.

Advantages eg
A one-off cost to purchase
Different sources of support available ie on-line, books, training
Has been tested by many users
Patches quickly released by Vendor
Available in a short time span
Large choice from different vendors
Standard file format likely to be used
Plug & Play capability for standard peripherals
Staff may be familiar with software already

Disadvantages eg
Can be expensive to purchase licences
May never fully meet the requirements of IF
May have additional features not needed
May have larger memory footprint

8		**Identify and explain a strategy that could be used for the administration staff.** *1st mark for identification, up to 5 for explanation.* On-site (1st mark) used if a customised off-the-shelf system is implemented (1) carried out when system has been implemented/installed (1) only need training on part of system they are going to be using (1) need specific training (1) when confident can be trained on other parts of system (1) all admin staff are computer literate (1)	**[6]**
9		**Identify and explain the type of maintenance that would be required.** Adaptive (1st mark) the system works well (1) but external changes may mean alterations are needed (1) to processes and data (1) eg. Government tax changes (1) no major changes to the system are required (1) the system meets the overall needs of Island Fly (1)	**[3]**
10	(a)	**Identify the most appropriate type of software for storing these records, justifying your choice.** Database (1st mark) can be relational (1) so updates are global (1) no redundant data (1)	**[3]**
	(b)	**Identify the most suitable device for backing up these records, justifying your choice.** Tape / External hard drive (1st mark) can be used for real time replication (1) can be removed from offices to ensure safekeeping (1) can hold large amounts of data (1)	**[2]**

Section B

Question	Answer	Mark
11 (a)	**Identify two components of the hardware specification part of the physical design specification** *Any 2 from, 1 mark each:* Memory capacity Storage devices Output devices Data capture equipment Communication equipment	**[2]**
(b)	**Identify two components of the input specification part of the physical design specification** *Any 2 from, 1 mark each:* Data sources Data capture methods Validation methods Verification methods Data input forms Input screen layouts	**[2]**
(c)	**Explain why detailed program specifications should be passed to the end-user of a system** *2 from:* If maintenance is needed at a later date in the life of the system (1) the team would be able to see how the system was constructed (1) It is unlikely that the same team that developed the system (1) would be performing any future maintenance (1)	**[2]**

12	**Explain the following types of maintenance giving an example of when each could be used:**
	
	Max 3 for explanation, 1 for example
	
	(i) Perfective
	
	    does not change the functionality of the system (1) improves usability (1) usually completed at request of end-users (1)
	    eg introduction of improved screen design (1)
		[4]

	Max 3 for explanation, 1 for example
	
	(ii) Preventative
	
	    attempts to solve problems before they occur (1) completed using routines & procedures to identify problems (1) can extend the life of the software (1) maintains the integrity (1)
	
	    eg installing and running a virus checker (1)
		[4]

Question	Answer	Mark
13	**Evaluate the use of dataflow diagrams as a tool in the systems life cycle.**	**[6]**
	Any 6 from, MAX 4 if only advantages/disadvantages given.	
	A diagrammatical way of representing the flow of data/information in a system (1)	
	Advantages eg Analyst is able to clearly break down the system under investigation (1) Diagrams are easier for non-specialists to understand (1) Documents/data stores and processes can be clearly linked (1) Shows external entity interaction with system (1)	
	Disadvantages eg Many different ways of developing a DFD (1) Lots of different symbols can be used (1) Easy to become very large (1) Can be difficult to see all processes/data stores and the interaction (1)	

G055 Networking solutions

MARKING INSTRUCTIONS FOR APPLIED GCE IN ICT EXAMINERS

These instructions supplement the general marking guidelines for ICT Examiners. Where they differ from the general guidelines, the instructions given here must be followed.

Standardisation

Before the standardisation meeting, mark, in pencil, at least ten scripts from a range of centres. Note any issues requiring discussion or clarification and raise these at the appropriate point during the standardisation meeting.

During the standardisation meeting, make careful note of any additions or changes to the mark scheme so that you can use it to mark the photocopied scripts provided.

At the end of the meeting (or soon after it) you will be provided with a final version of the mark scheme. You should destroy any previous version and mark strictly in accordance with the final mark scheme.

As soon as possible after the standardisation meeting, mark ten scripts using red ink and send them to your Team Leader.

Do not continue marking until your Team Leader tells you to do so. S/he will give you feedback on any aspects of your marking that needs attention. At this stage your Team Leader may request a further sample of ten scripts. Again, you should not mark any further scripts until you are told you can.

If your Team Leader's marks for these **standardisation** scripts differ from your own, enter her/his marks for these scripts on the appropriate MS2.

When you are told you can continue marking, continue to apply the mark scheme as carefully and accurately as you did for the sample.

Take careful note of the batch dates and organise your marking so that you can meet these deadlines.

Marking - general

Only mark in red ink.

Mark strictly to the mark scheme agreed at the standardisation meeting.

If you find an answer that you feel is correct but which does not fit any of the answers on the mark scheme, contact your Team Leader for advice.

Marking tasks

All papers allow marks for the pre-release tasks:

- indicate clearly with a tick (✓) where each mark is awarded – if appropriate
  - count the number of ticks and enter the number in the Tasks boxes on the front of the question paper.

- graded response tasks -indicate clearly how a mark band has been achieved
  - AO4 + 1/2/3 – identifies mark for evaluation (1-3 marks)
  - QWC + 1/2/3 – identifies mark for QWC (1-3 marks)
  - CS – response has been applied to case study
  - P/E/+/- - identifies points/expansions, positive and negative points
  - H/M/L + mark – identifies mark band and mark for content
  - add AO4, QWC and H/M/L mark together to get total mark for the task and enter in the Tasks boxes on the front of the question paper

- indicate that each page has been looked at by putting a diagonal line across the bottom right-hand corner of any page where no marks are awarded

Marking the questions

Only answers to questions written on the Question Paper should be marked.

Indicate clearly with a tick **exactly** where each mark is awarded. The number of ticks must equal the number of marks.

Write the number of marks from the question paper in the right-hand margin level with the bottom of the lines/space for the answer.

Make sure you do not give marks twice for the same points or exceed the number of marks available. Write **Max** next to the last tick to indicate where the mark limit for the question/part question has been met, especially if there are further points worthy of credit.

Total the marks for the whole question (**not** part questions) and write this in a circle, in the right-hand margin of the question paper, at the end of the question. There should be a circled mark for each question.

Mark any answer that is clearly wrong with a cross (✗).

Draw a line on the right-hand side of any answer that does not contain any points worthy of credit and/or use the abbreviations provided. It must be clear that you have read **all** the answers given.

Do not write anything on the question paper or pre-released tasks other than the approved abbreviations given over the page.

^	Something vital to the mark point has been omitted.
BOD	Benefit of the doubt given.
NBOD	Benefit of the doubt **not** given.
CON	Candidate contradicts him/herself.
NAQ	Candidate has not answered the question as set.
MTP	Candidate has missed the point of the question.
W	Candidate is working towards a mark but has not given enough to receive credit at this point.
NE	Not enough for the candidate to receive credit.
TV	Answer is too vague to receive credit.
FTC	Follow-through credit. When an earlier wrong answer has been penalised, this may be used to show that credit can now be given to a part of the script which depends on that earlier wrong answer. This avoids penalising a candidate twice for the same error, but **should only be used where specified by the PE**.
MAX	Shows that the maximum number of marks for a part-question or question has been awarded (even though the answer may contain further correct points).
R	The point repeats one already awarded credit.
JE	Candidate has *just* given enough to be awarded a mark.

Examiners may also underline the key words or phrases that contribute to the answer being worthy of credit or which confirm that the answer is wrong. However, care will be needed as candidates often use underlining to indicate an answer in pre-prepared material. Some also use red ink for this.

Transferring marks

Transfer the circled 'whole question' marks to the appropriate boxes on the front of the question paper.

Total the marks and enter this number in the Total box.

Check you have transferred and totalled the marks correctly.

Get your checker to check that
- the number of marks awarded for each task/question/part question equals the number of ticks
- task and question totals are correct
- marks are correctly transferred to the front of the question paper
- the question paper total is correct.

Transfer the totals onto the Centre MS2, taking care that the correct mark is written beside each candidate and that the lozenges are filled in correctly.

Get your checker to check that you have completed the MS2 correctly.

Send MS2s to Cambridge as soon as they are ready using the labels provided– you do not need to wait for the batch dates.

Never send scripts and MS2s in the same package.

If you are unsure what to do at any stage:

- look in the Instructions for Examiners handbook
- look at the Marking Guidelines for ICT Examiners
- contact your Team Leader, Principal Examiner, Chief Examiner or the ICT Subject Team for advice.

There are 100 marks available for this assessment. They are allocated as follows:

- Pre-release material   30 marks
- Section A of test paper   50 marks
- Section B of the test paper 20 marks

Task 2
Network diagram showing a client-server network
Any **six** of
  a. a file server
  b. print server
  c. mail server
  d. web server
  e. proxy server
  f. all identified servers in a secure location
  g. <u>network</u> printer
  h. patch panel
  i. hub/switch or wireless access point
  j. router
  k. modem
  l. bridge (between office computers and café computers)
  m. UPS
  n. cabling positioned safely eg not across walking areas
1 mark each to a maximum of 6   **[6]**

Cables and connectors
1 mark for matching cable and connector
(eg UTP/RJ-45, STP/RJ-45, Wireless/USB or PCMCIA)
                                                                               [1]

1 mark for appropriate cable for IEC network
(eg UTP/STP/RJ-45, Wireless/USB or PCMCIA)
(do **not** accept fibre)
                                                                               [1]

1 mark for description of suitability of cable choice
(eg covers required distances/UTP/STP, acceptable speed/UTP/STP, no need for
    wiring/wireless)
                                                                               [1]

Other network connection components
1 mark for identification of appropriate connecting equipment
(eg router, hub/switch or wireless access point/ wireless hub, bridge)
                                                                               [1]

1 mark each for description of suitability of connecting equipment from
- controls traffic/forms connection to Internet(1)
- justification (eg router – allows shared Internet access;
    hub - simple, low cost;
    switch - better security, faster transmission;
    WAP - no need for cabling;
    Bridge – separates café and office networks) (1)
Max 2 marks   **[2]**

Any **two** items of additional hardware identified from
- <u>network</u> printers
- backup device
- <u>file</u> server
- <u>print</u> server
- <u>web</u> server
- <u>proxy</u> server
- <u>mail</u> server
- network interface cards
- UPS
- patch panel

1 mark each to a maximum of 2   **[2]**

1 mark each for description of suitability of up to **two** hardware items from
- network printers – no need for server / direct access to print queue for all users
- backup device – data security for file server
- file server – central storage of customer and travel details and other data
- print server – dedicated computer for managing print queues, less processing for printing on individual computers
- web server – holding intranet and extranet pages
- proxy server – checks/caches web pages
- mail server – management of mail traffic
- network interface cards – control access to network media
- UPS – allow continuous operation / reduce risk of loss of data due to power fluctuations
- patch panel – central cabling pont

1 mark each up to a maximum of 2 marks   **[2]**

1 mark for any **one** item of additional software/configuration identified
- network operating system
- server operating system
- client operating system
- network drivers
- protocols
- email software
- extranet software
- network security software
- backup software
- print queue software

1 mark   **[1]**

1 mark for description of suitability of software item chosen from
- network operating system – controls operation of entire network
- server operating system – controls operation and communication for server
- client operating system – controls operation and communication for client computers
- network drivers – deal with operation of network interface cards
- protocols – (eg NetBEUI, TCP/IP) settings for communication on network
- email software – allows internal communication between users on the network
- extranet software – manages user access and document sharing on extranet
- network security software – protection against virus / unauthorised access
- backup software – manages the centralised copying of data to backing store
- print queue software – controls printing for users

1 mark   **[1]**

Evaluation

Mark	Guidance
3	A strength and a weakness in the method(s) used is identified
2	A strength or a weakness in the method(s) used is identified
1	Some comment is made on method(s) used

Task 3

Band	Mark Range	
H	7 – 9	Candidates will show a clear understanding of the task by describing in detail potential security risks **and** ways of minimising them. The information will be presented in a structured and coherent form. There will be few if any errors in spelling, grammar and punctuation. Technical terms will be used appropriately and correctly.
M	4 – 6	Candidates will show an understanding of the question by describing potential security risks and may show some ways of minimising them. The information will be presented in a structured format. There may be occasional errors in spelling, grammar and punctuation. Technical terms will be mainly correct.
L	1 – 3	Candidates will demonstrate a limited understanding of the question by identifying potential security risks. Information will be poorly expressed and there will be a limited, if any, use of technical terms. Errors of grammar, punctuation and spelling may be intrusive.

To include eg:

Problem/Risk (P)	Description (D)	Way of minimising (M)
hackers	accessing network	install a firewall to control access to network
Internet fraud	from tracking customers' transactions	firewall and secure connections
viruses	introduced by customers opening email attachments	install anti-virus software
customers not logging out	allowing unauthorised access	automatic log out after a period of time
cookies	risk of customers' private information being seen by others	set browser not to accept
automatically saving passwords	no authentication of customer	disable automatic saving

Section A

1   Advantage

1 mark for identification and 1 mark for expansion of any of eg

- can share an Internet connection (1) cheaper than a number of connections (1)
- can share resources (1) such as printers (1) such as data(1)
- can use a network to communicate (1) better team working (1)
- can offer more services to customers (1) such as access to email, on-line booking (1)

Disadvantage

1 mark for identification and 1 mark for expansion of any of eg

- cost of equipment (1) need to buy connecting equipment and new software (1)
- increased security risk (1) from hackers and viruses (1)
- need for training and guidance (1) for staff and customers (1)
- cost and inconvenience of installation (1) for business and staff (1)
- cost of maintaining and supervising the network (1) staff need to be assigned (1)

[4]

2 **(a)** Any **three** of: [3]
- at least one server on the network
- more than one client on the network
- centralised storage of data
- central management of security
- users can log on at any station
- centralised update and installation of software [3]

(b) 1 mark for identification and 1 mark for expansion of any **two** of
- size of network (1) there will be at least 10 computers (1)
- level of security required (1) central management of security is required (1)
- amount of network traffic (1) high level of shared access to Internet (1)
- administration of network (1) need to ensure that customer computers are all the same configuration (1) centralised backups (1)
- access to central data (1) by multiple users (1)
- easier expansion (1) than peer-to-peer (1) [4]

3 **(a)** 1st mark for a correct diagram
(not necessarily labelled)

plus **three** from:
1 mark for showing direction of flow
1 mark for each correct label up to max 3

[4]
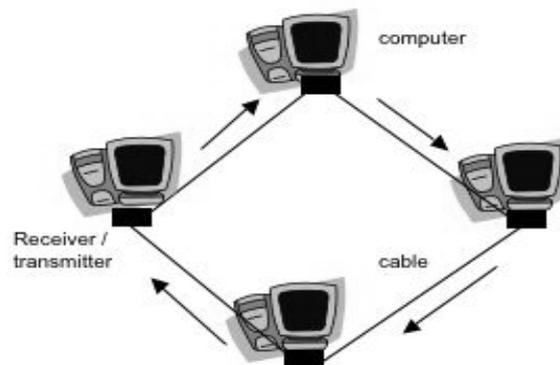
(b) Any **three** of
- data travels in one direction between computers
- data is passed from one computer to the next around the ring
- computers take data off the network if it is addressed to them
- one machine sometimes monitors the network
- depends on all receivers/transmitters working
- not affected by the loss of a single computer
- pass data on if not addressed to them

[3]

(c) 1 mark for identification and 1 mark for expansion of any of:
- depends on all receiver/transmitters working (1) or whole ring stops (1)
- becomes slower as it grows (1) each computer adds one circuit to the wait time (1)

[2]

4 **(a)** RJ-45
1 mark **[1]**

(b) Any **two** of:
- minimum interference/noise (1) during data transmission (1)
- transmission speeds (1) of up to 100mbps or 1000mbps (1)
- low cost (1) in comparison to fibre optic (1)
- commonly used (1) in Ethernet networks (1)
- covers required distance (1) less than 100m (1) **[4]**

(c) Any of:
- higher cost than UTP
- less flexibility **[1]**

5 **(a)** 1 mark for identification and 1 mark for expansion of any of:

- receives messages (1) from any computer on the network (1)
- repeats a message (1) to all other computers on the network (1)
- amplifies the signal received (1) before sending it on (1)
- provides a central connection point (1) for all computers on the network (1)
- regenerates and retimes the signal (1) before passing it on (1)

[2]

(b) 1 mark for identification and 1 mark for expansion of any of:

- provides central disk storage (1) for all users of the network (1)
- gives files to clients (1) if logged in and requesting them (1)
- locks files (1) so that clients can't change them at the same time (1)

[2]

6   **Two** from:

Mail server software (1st mark):

1 mark for description and 1 mark for expansion relating to identified software:

- receives mail into mailboxes (1) sends mail to user on request (1)
- manages transfer of mail (1) between itself and other mail servers (1)
- manages upload and download of mail (1) to client machines (1)
- sits on server machine (1) one copy (1)

Mail software on client (1st mark):

1 mark for description and 1 mark for expansion relating to identified software:

- connects to mail server (1) to upload or download mail (1)
- provides features (1) for managing mail (1)
- sits on client machine (1) one copy per client (1)
- provides security functions (1) verifies the user (1)
- creates and maintains a copy of the user's mailbox (1) on the client (1)

Browser for web based mail (1st mark):

1 mark for description and 1 mark for expansion relating to identified software:

- makes connection to server (1) to access mailbox (1)
- allows direct access to mailbox (1) for owner of mailbox (1)
- verifies the identity (1) of the user (1)
- sits on client machine (1) one copy per client (1)

[6]

7   One of:

     NetBEUI (1st mark)

     1 mark for point and 1 mark for expansion of any of:

- commonly used on PC systems (1) familiar (1)
- can be easily configured (1) through API (1)

     TCP (1st mark)

     1 mark for point and 1 mark for expansion of any of:

- used on Internet (1) connecting LAN to Internet simply (1)
- maintains a connection (1) between individual machines on the network (1)
- error free connection (1) packets are resent if necessary (1)

     IP (1st mark)

     1 mark for point and 1 mark for expansion of any of:

- addressing protocol (1) used on the Internet (1)
- used by routers (1) so computers can share Internet access (1)

     NetBIOS (1st mark)

     1 mark for point and 1 mark for expansion of any of:

- commonly used on PC systems (1) familiar (1)
- can work on a gateway with TCP/IP (1) for connection to the Internet (1)   **[3]**

8   Any **two** of:

- use an easily understandable file-naming system (e.g. named by problem)
- use a suitable directory structure
- transfer logs to a database
- set access rights to restrict access to logs
- set access rights to restrict access to folders containing logs
- an example illustrating any of the above
- link problems to solutions   **[2]**

9   **(a)**   Any **two** of:

- discussion forum/bulletin board
- secure online booking
- storage of pictures / files
- access to information such as offers   **[2]**

(b)   Hardware

1 mark for identification and 1 mark for expansion of one of:

- computer (1) to run browser software (1)
- modem/router (1) to connect to the Internet (1)

Software

1 mark for identification and 1 mark for expansion of one of:

- browser (1) to access web pages and discussion forum (1)
- modem software (1) to drive the modem (1)
- email software (1) web based (1)   **[4]**

(c)   Any **three** of:

Advantages:

- customers will stay loyal
- can get customer feedback on destinations
- less need for existing customers to come to café
- computers free for new customers

Disadvantages:

- needs constant updating and monitoring
- staff will be needed to manage it
- needs careful security

Max 2 for advantages and max 2 for disadvantages to max 3   **[3]**

Section B

10 1 mark each for any of:

   (i)   FTP software
          web browser
          email attachment facility

   (ii) web authoring software
          text editor and browser
          graphics software
          animation software

   (iii) browser for viewing web pages
          graphics software   **[3]**

11 1 mark for point and 1 mark for expansion of either of:

   - provides services (1st) such as file storage, print management (1)
   - services requests (1st) from client machines (1)
                                                                            [2]

12 1 mark for point and 1 mark for expansion of any of:

   - place adverts/links (1) on other people's websites (1)
   - use own website (1) for advertising (1)
   - use email (1) to send details of offers to customer list (1)
                                                                            [4]

13 **(a)** eg
          http://www.-------.co.uk/
          https://service.domain.co.uk/
          ftp://ftp.domain.co.uk/
          1 mark
                                                                            [1]

   (b) 1 mark for point and 1 mark for expansion for any 2 of:
      - first part determines service/protocol to be used (1) eg http, ftp (1)
      - second part is domain name (1) eg www.-----.co.uk (1)
      - domain name is translated to an IP address (1) which is used to find the correct web server (1)
      - third part is path to document (1) on the web server (1)
                                                                            [4]

14 eg
- ensure cables are kept out of the way
- ensure all electrical connections are intact
- ensure that there is adequate power supply
- ensure stability of workstations
- provide fire extinguishers / fire blanket

1 mark for each up to 2 marks

[2]

15 1 mark for point and 1 mark for expansion of two of:

- virus checks (1) to ensure data isn't corrupted(1)
- install firewall (1) to prevent unauthorised access (1)
- back up <u>regularly</u> (1) to ensure copies are always available (1)
- use passwords/user accounts (1) to restrict access to authorised users (1)
- take physical measures (1) to protect equipment from theft (1)
- use encryption (1) so that it cannot be read if intercepted (1)
- policies (1) for network use (1)

[4]

Grade Thresholds

Applied GCE (H115/H315/H515/H715)

January 2008 Examination Series

Coursework Unit Threshold Marks

Unit		Maximum Mark	A	B	C	D	E	U
G040	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
G042	Raw	50	44	39	34	29	25	0
	UMS	100	80	70	60	50	40	0
G043	Raw	50	44	39	34	29	24	0
	UMS	100	80	70	60	50	40	0
G044	Raw	50	43	38	33	28	24	0
	UMS	100	80	70	60	50	40	0
G045	Raw	50	43	38	33	28	24	0
	UMS	100	80	70	60	50	40	0
G046	Raw	50	43	38	33	28	24	0
	UMS	100	80	70	60	50	40	0
G047	Raw	50	43	38	33	28	24	0
	UMS	100	80	70	60	50	40	0
G048	Raw	100	83	73	63	53	44	0
	UMS	100	80	70	60	50	40	0
G049	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
G050	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
G051	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
G052	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
G053	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
G056	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
G057	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
G058	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
G059	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0

Examined Unit Threshold Marks

Unit		Maximum Mark	A	B	C	D	E	U
G041	Raw	100	62	55	48	41	35	0
	UMS	100	80	70	60	50	40	0
G054	Raw	100	64	55	47	39	31	
	UMS	100	80	70	60	50	40	0
G055	Raw	100	71	63	55	47	39	
	UMS	100	80	70	60	50	40	0

Specification Aggregation Results

Uniform marks correspond to overall grades as follows.
Advanced Subsidiary GCE (H115):

Overall Grade	A	B	C	D	E
UMS (max 300)	240	210	180	150	120

Advanced Subsidiary GCE (Double Award) (H315):

Overall Grade	AA	AB	BB	BC	CC	CD	DD	DE	EE
UMS (max 600)	480	450	420	390	360	330	300	270	240

Advanced GCE (H515):

Overall Grade	A	B	C	D	E
UMS (max 300)	480	420	360	300	240

Advanced GCE (Double Award) (H715):

Overall Grade	AA	AB	BB	BC	CC	CD	DD	DE	EE
UMS (max 600)	960	900	840	780	720	660	600	540	480

Cumulative Percentage in Grade

Advanced Subsidiary GCE (H115):

A	B	C	D	E	U
1.0	13.1	36.4	62.9	89.3	100.0
There were 309 candidates aggregating in Jan 2008.					

Advanced Subsidiary GCE (Double Award) (H315):

AA	AB	BB	BC	CC	CD	DD	DE	EE	U
0.0	0.0	0.0	0.0	0.0	5.9	35.3	70.6	88.2	100.0
There were 18 candidates aggregating in Jan 2008.									

Advanced GCE (H515):

A	B	C	D	E	U
8.2	28.6	49.0	63.3	93.9	100.0
There were 54 candidates aggregating in Jan 2008.					

Advanced GCE (Double Award) (H715):

AA	AB	BB	BC	CC	CD	DD	DE	EE	U
14.3	14.3	14.3	14.3	28.6	42.9	42.9	71.4	100.0	100.0
There were 7 candidates aggregating in Jan 2008.									

For a description of how UMS marks are calculated see:
http://www.ocr.org.uk/learners/ums_results.html

Statistics are correct at the time of publication.

OCR (Oxford Cambridge and RSA Examinations)
1 Hills Road
Cambridge
CB1 2EU

OCR Customer Contact Centre

14 – 19 Qualifications (General)
Telephone: 01223 553998
Facsimile: 01223 552627
Email: general.qualifications@ocr.org.uk

www.ocr.org.uk

For staff training purposes and as part of our quality assurance
programme your call may be recorded or monitored