OCR
RECOGNISING ACHIEVEMENT

ADVANCED SUBSIDIARY GCE
APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY

How Organisations Use ICT

G041/IC

INSERT

Thursday 13 January 2011
Afternoon

Duration: 1 hour 30 minutes

INFORMATION FOR CANDIDATES

* This document consists of **16** pages. Any blank pages are indicated.

INSTRUCTIONS TO EXAMS OFFICER/INVIGILATOR

* Do not send this Insert for marking; it should be retained in the centre or destroyed.

PRE-RELEASE TASKS – INSTRUCTIONS FOR CANDIDATES

Read the attached case study and these instructions carefully, then carry out the tasks detailed below. There are two types of task.

In Task 1 you will produce notes that will help you to answer questions in the examination for this unit. There are 30 marks available for Tasks 2 and 3.

You will need your completed tasks when you take the examination for this unit.

The work produced in response to the pre-release tasks must be submitted to your teacher when it is completed. The work must be presented as a hard copy.

It is not acceptable for you to copy large parts of material from other sources as the tasks require you to apply your knowledge to the case study. Any books, information leaflets or other material (e.g. videos, software packages or information from the internet) which you have used to help you complete this work must be clearly acknowledged in the work itself. To present material copied from books or other sources without acknowledgement will be regarded as deliberate deception.

You **must not** submit any material other than your response to the pre-release tasks.

The work must be collated so that it is presented in task order.

Each page of the work must be marked clearly with your name, Centre number and task number.

When you have completed the tasks you must sign and date a Candidate Authentication Statement. You must then ask your teacher to sign to confirm that the work is your own.

Task 1

Carry out your own research and make notes which:

*   describe the job functions / departments within Progress Plants
*   describe the roles of the personnel within Progress Plants and how they interact in relation to the company's structure
*   describe the main processes carried out by Progress Plants, including the inputs, the processing and calculations, and the outputs involved
*   describe the ICT systems used in Progress Plants
*   identify the strengths and weaknesses of the main systems used in Progress Plants and recommend and explain improvements/extensions to the systems by using ICT in relation to the needs of the company
*   explain what Progress Plants must do to comply with legislation relating to ICT.

Task 2

An important process within Progress Plants is re-stocking garden centres.

Draw a diagram to explain how information moves within Progress Plants during the process of re-stocking a garden centre. The process starts when the decision is made about what to sell and ends when the order is received at head office.

Your diagram should show:

*   who sends the information
*   who receives the information
*   the types of information communicated
*   the method by which it is communicated.

[15]

Task 3

In response to competition from other growers, the managing director of Progress Plants is considering building state of the art greenhouses with computerised environmental control and plant management systems.

Carry out some research and produce a word-processed report for the managing director of Progress Plants. Your report must explain and evaluate the impacts of this computerised control and management system on Progress Plants and its staff.

Briefly evaluate the method(s) you used to complete this report.

The work you produce for Task 3 **must not** exceed 500 words, including the evaluation of the methods you used.

You **must** include a word count.

The quality of your written communication will be assessed through this task.

You **must** acknowledge all information sources you used. This is not included in the 500 words.

[15]

Progress Plants garden centres case study

Introduction

Progress Plants is a company that owns a small chain of garden centres on the outskirts of towns in the Midlands. The company also owns a nursery where some of the plants sold in the garden centres are grown. The nursery is situated in the countryside. The company's head office is on the nursery site along with a warehouse which is used to store the non-plant goods that the company sells.

Goods supplied and operations

As well as outdoor plants the garden centres sell fencing, plant pots, gardening tools, garden ornaments, indoor plants, books and a wide range of other goods for the home and garden.

The company specialises in growing climbing plants and developing new varieties. It sells these and a limited range of other plants and goods by mail order. The company produces a catalogue each season and places advertisements in the small-ads sections of several gardening magazines. The mail order operation is run from the head office.

As well as selling to members of the public, the company supplies the plants it grows to other garden centres and to local councils' parks and gardens departments.

Staffing and job functions (see Appendix 1)

Progress Plants is run by a Managing Director, who is responsible for all aspects of the day-to-day running of the business, supported by three assistant directors. These are Sales and Marketing, Finance and Administration, and Operations. Each assistant director is responsible for several departments or job functions within the company. For example, the Operations Director is responsible for warehousing, distribution and plant production in the nursery.

Finance and administration

The Finance and Administration Director is responsible for accounts, human resources (HR) and administration. All of these job functions are based in the head office. There is a department for each job function. Each department has a manager.

Accounts staff keep records of all financial transactions. These records include the income from sales for each garden centre and from mail order, payments for plants and other goods purchased, and staff wages. These payments are made using an online banking facility. The staff use the financial records to produce monthly and annual accounts for the directors and HM Revenue and Customs. They must also generate VAT (Value Added Tax) returns once a quarter. The accounts staff must arrange for the amount due to be paid.

HR staff carry out a range of activities relating to staff recruitment, welfare and training. Recruitment involves advertising vacancies, sending out and receiving application forms, arranging interviews and drawing up contracts for successful applicants. Staff welfare involves keeping staff records, ensuring members of staff get the correct wages and leave entitlement, and that other benefits such as pension contributions are made and recorded. The training aspect involves keeping records of training courses attended and qualifications obtained. The HR staff also arrange for staff to attend training courses when required.

Administration staff are responsible for producing and sending correspondence and dealing with correspondence received. They receive details of plants and other goods required from the warehouse manager. They then produce and send purchase orders to the relevant suppliers. They pass the invoices received from suppliers to the accounts staff for payment. Administration staff also keep track of general office supplies, such as paper and toner, and place orders for more stock when necessary.

The company does not employ any ICT support staff but has a support contract with their computer supplier. If a problem arises, a member of the administration staff contacts the supplier's help desk by telephone to arrange for a visit from an ICT technician.

Sales and marketing

The Sales and Marketing Director is responsible for the mail order function as well as the marketing function that advertises and promotes the business. Mail order clerks and marketing assistants report directly to this director. The director also has responsibility for the garden centres and for negotiating contracts for sales of plants to other garden centres and local councils.

Garden centres

Each garden centre has a centre manager who is responsible for its day-to-day running. Staff in each garden centre are organised into two main functions, sales and stock maintenance, each of which has a manager who reports to the centre manager. Each garden centre also has a centre administration assistant who also reports to the centre manager.

The centre administration assistant in each garden centre carries out all of the office procedures. An important role of the centre administration assistant is to keep records of staff hours, as many of the staff work part-time. The centre administration assistant must also keep account of the money taken through the tills. At the end of each week the centre administration assistant emails details of staff hours and the money taken to the appropriate staff in the head office.

The main responsibility of sales staff is to serve customers and take payments.

Stock maintenance staff are responsible for ensuring that there is sufficient stock on display for customers to purchase and that plant stock is in good condition. This includes checking stock levels of items on display and topping up displays from the stock area, sticking price labels on items when they arrive and either putting them on display or in the stock area. They also water plants, remove dead flowers or leaves from plants and answer customers' queries.

ICT systems in each garden centre

The centre manager and centre administration assistant each has a computer with a 15 inch TFT monitor. Each of these computers has standard office software installed, including word processing, spreadsheet and communications software. A wireless router provides a peer-to-peer network and a broadband connection to the internet. A laser printer can be accessed from both computers. On the centre administration assistant's computer, templates have been set up in both the word processing and spreadsheet software packages. These are used to produce standard letters, orders and financial summaries.

There are three electronic tills near the garden centre exit, each with a chip and PIN card reader beside it. All card readers are connected via the telephone lines to the banking system. The tills have in-built software that allows keys on the keypad to be programmed as well as processing of sales and production of receipts.

ICT systems on the nursery site

The buildings and departments on the nursery site have workstations linked in a local area network (LAN) with a single server. There is a workstation for each member of staff in each department of the head office as well as one in the warehouse and one in the head gardener's office. There is a laser printer in each department and a dot matrix printer in the mail order department, which is used for printing on multi-part stationery. The warehouse computer has a barcode reader which is used to log incoming and outgoing goods. A broadband internet connection allows access to email facilities on all workstations.

Personnel data, sales and marketing data, accounts data, customer data and stock data are stored on the server. All data can be accessed from any workstation but only by staff who are authorised to do so. For example, only members of the HR department can access personnel data. Word processing, spreadsheet, database software and sales order processing (SOP) software are stored on the server and can be accessed from all workstations.

Sales procedures in garden centres

Members of the sales staff operate the tills at the exit from each garden centre. Most plants and goods have a price label on them. However, the prices of some goods, that are difficult to label, are listed on a card by each till. The staff member presses a pre-programmed key on the till to indicate the type of each item, e.g. plant, fencing, pots, and then enters its price using the numeric keypad. If a customer is buying more than one of an item, the quantity can also be entered using this keypad. Once all items have been entered, the total key is pressed and the till calculates the total cost of the customer's purchases.

If the customer pays by cash, the member of staff enters the amount tendered and the till calculates the change due. A receipt is printed and given to the customer. This receipt shows the name, address and contact details of the garden centre, the date and time of the transaction, a list of the prices, the total due, the amount tendered and any change due.

If the customer wishes to pay by credit or debit card, the staff member presses a key on the till to indicate this and a till receipt is printed (Fig. 1). The card reader is used to process the card payment and two copies of a card receipt are printed. The staff member hands one copy to the customer along with the till receipt. The second copy of the card receipt is placed in the till.

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              Progress Plants
               Garden Centre
          New Road Beeston NG9 5ZA
               0115 9021 3541

       VAT 675476909

       12/08/2010                14:43

       SUNDRIES          4.39
       COMPOST           3.99
       NON VAT           4.00
       PLANTS            5.99
       PLANTS           16.99
       PLANTS            5.99
       POTS
       4@.50             2.00
       CRD CARD         43.35
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Fig. 1

Money is taken from each of the tills and counted by the centre administration assistant at intervals during the day depending on how busy the garden centre is. At the end of each day the total takings from each till is calculated automatically. A summary is printed showing the value of each sale and the total takings. The centre administration assistant checks these totals against the actual money counted and card payments taken, recording the totals as well as any discrepancies on a spreadsheet.

Garden centre stock control procedures

One of the main responsibilities of the stock maintenance staff is helping to ensure that the garden centre does not run out of the plants and goods it sells. As there is no record of exactly what is purchased, much of the staff's time is spent counting the stock in the garden centre.

As many of the items stocked by garden centres, particularly the plants, are seasonal, the Sales and Marketing Director decides what each of the garden centres will sell at particular times of the year. This information is passed to the administration staff via the head office LAN. Once a week, the administration staff send a set of stock sheets by post to the centre manager of each garden centre. These list all the plants and products that the Sales and Marketing Director wants each garden centre to have in stock the following week along with the suggested stock level and re-order level for each (Appendix 2).

These stock sheets are handed to members of the stock maintenance staff who count the items in stock and enter this number on the stock sheets. The completed stock sheets are handed to the stock maintenance manager who then decides what needs to be ordered from the nursery or warehouse. Whenever possible this manager is expected to stick to the stock level and re-order level suggested by the Sales and Marketing Director. However, some items may sell better or worse in one garden centre than another so the stock maintenance manager can adjust the figures.

The stock maintenance manager completes the number required column on the stock sheets and hands them to the centre manager who makes the final decision about what to order and amends the stock sheets if necessary. The centre manager hands the final stock sheets to the centre administration assistant who enters the details of the goods required into an order template and emails the order to the administration staff at head office.

Mail order procedures

The Sales and Marketing Director, with the help of the marketing assistants, produces a mail order catalogue for each season, which includes plants and other items that are appropriate for that season. For example, the autumn catalogue includes Christmas decorations and the summer catalogue includes outdoor furniture and barbecue accessories. The catalogues are printed and posted to existing mail order customers by the marketing assistants. These include an order form pre-printed with the customer number. Catalogues are also sent to anyone who telephones in response to an advertisement.

Orders are received by post. One of the mail order clerks enters the order details into the sales order processing software using an order entry screen (Fig. 2). The system generates a unique order number for each new order and inserts the system date.

Fig. 2

If the customer has ordered goods before, only the customer number needs to be entered. The software searches the customer database on the server and the customer's details are inserted automatically. However, the mail order clerk needs to check that these are correct and amend them if necessary. For new customers, the mail order clerk must enter all their details and click on the New Customer button. The system generates a unique customer number and the data is added to the customer database.

The mail order clerk then keys in the product code and quantity of each item required. The product code is used to look up and display a short description of the item along with an indication of availability and the unit price if the item is available. The unit price is multiplied by the quantity to display the line total. As each item is entered, the system calculates the total price of the goods. When all items have been entered, the Proceed to Payment button is selected.

For orders under £100, there is a £6 delivery charge for plants and a £2.50 delivery charge for non-plant items. For orders of £100 or more, delivery is free. Any delivery charges are added to the goods total to give the receipt total.

If the customer has provided credit or debit card details, the receipt total is requested from the card issuer. If the customer has enclosed a cheque, the mail order clerk must enter the amount shown. This value is compared with the receipt total. If an ordered item is out of stock, the value on the cheque will be too high. The software calculates the difference and produces an over-payment notice. This is passed to the accounts department so that a cheque can be raised and sent to the customer.

The system produces a detailed receipt listing all items supplied along with the price of each and the total cost (Appendix 3 and 4). As plants are despatched separately from non-plant items, the receipt is printed on multi-part stationery so that a copy can be enclosed with each parcel. The software also produces separate delivery notes for plants and non-plant items, again on multi-part stationery, along with sufficient address labels. These are passed to the warehouse manager and the head gardener in the nursery as appropriate, so that the orders can be made up and despatched.

Specialist packaging is required for the plants. Once a month, the head gardener sends details of the packaging required to a member of administration staff. They create a purchase order and post this to the supplier.

Warehouse

The stock control software on the warehouse computer has separate screens for incoming and outgoing goods. All goods have a product code which is contained in a barcode. When goods arrive in the warehouse the barcode of each product is read and the quantity is entered via the keyboard. The product number is used to locate the record for that item in the stock database and the quantity is added to the number_in_stock field for that item.

The warehouse receives two types of orders, individual items for mail order customers and bulk orders from the garden centres. In both cases, the orders are picked by the warehouse staff who use the barcode reader to input the product code and the keyboard to enter the quantity removed from stock. The process is the same as for incoming goods but the quantity is deducted.

There is a pre-set reorder level for each product stored on the system. The system compares the value of the number_in_stock field with this pre-set level. If the number in stock is less than this level the item is added to a reorder log on the system and a low stock warning is displayed on screen. Twice a week the warehouse manager prints out the reorder log, uses it to decide what needs to be ordered, and sends these details to the administration department via the head office LAN. A member of the administration staff produces a purchase order for the goods required and posts it to the wholesaler. The wholesaler posts an invoice back to the administration department.

The wholesaler makes up the order and loads it onto a delivery lorry. A delivery note is handed to the lorry driver. When the goods are delivered to the warehouse, the lorry driver hands the delivery note to the warehouse manager, who checks it against the goods received and passes it to the administration department by internal mail.

A member of administration staff checks the delivery note against the wholesaler's invoice before passing the invoice to accounts by internal mail. A member of accounts staff uses online banking to request that the company's bank pays the invoice total to the wholesaler.

Appendix 1 – Organisational Structure
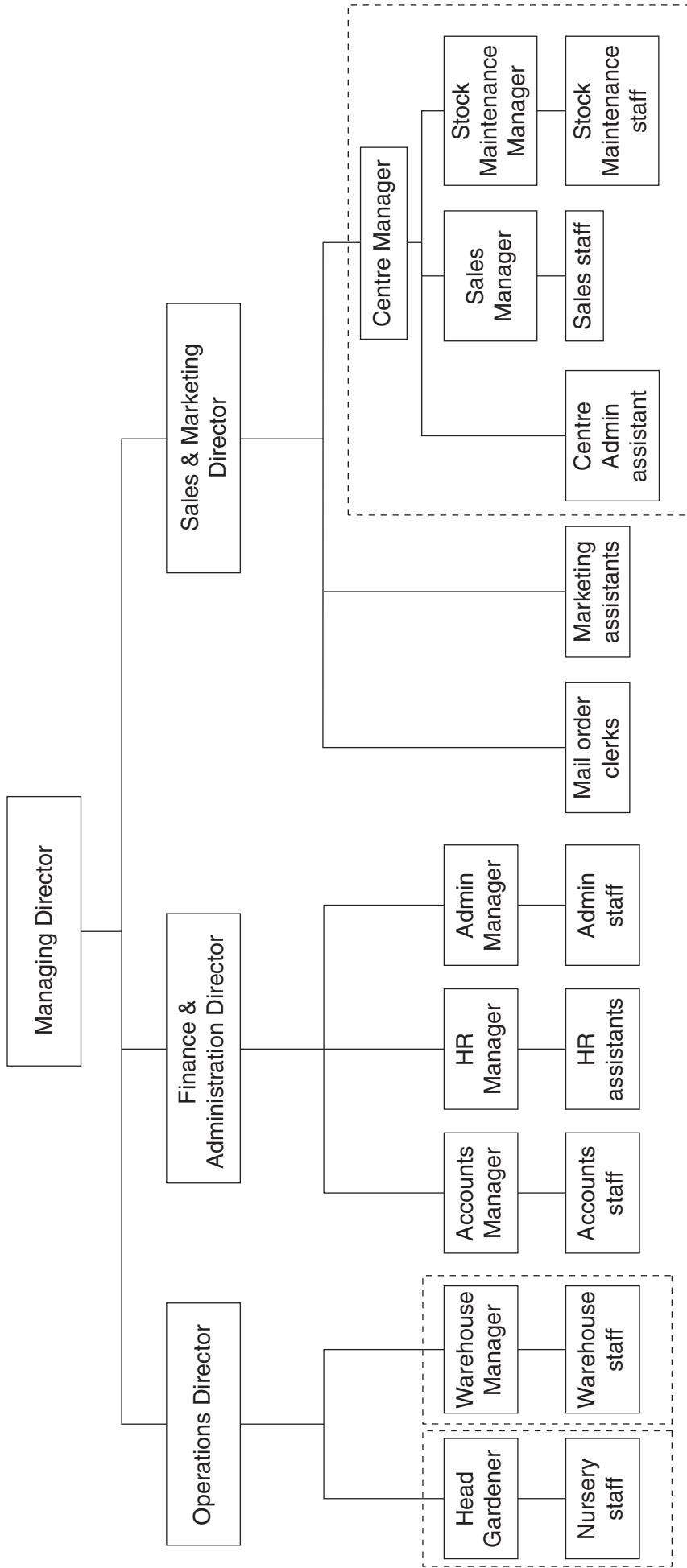
Appendix 2 – A stock sheet

Stock Sheet

Beeston Garden Centre

week ending 13/05/10

Product Code	Description	Stock Level	Re-Order Level	Stock Check Level	Number required
P0213	Clematis Nelly Moser	45	20		
P0216	Clematis Lilac Blue	30	10		
P0219	Clematis Orange Bloomer	15	5		
P0231	Royal Red Rose	40	20		
P0247	Climbing Honey Mini Rose	60	30		
P0248	Climbing Daisy Mini Rose	50	15		
P0252	Mini Honeysuckle Velvet	100	50		
P0255	Honeysuckle Annie Dream	125	50		

Appendix 3 – A mail order receipt – card payment

Progress Plants

Rectory Avenue

Arley

B12 4QQ

Telephone 0161 721 9010   Fax 0161 721 9011

VAT 675476909

Mail Order Receipt

Order No: QW3472   **Order Date:** 25/05/10

Product code	Description	Quantity	Unit Price (£)	Line Total (£)
P0214	Clematis Multi-Blue	2	5.95	11.90
P0367	Clematis Rouge Cardinal	1	5.95	5.95
P0432	Acer palmatum dissectum	4	13.95	55.80
5061	Lightweight shears	1	19.95	19.95
4321	10 cm terracotta pot	2	9.99	19.98
2893	Stone planter	1	not available	0.00
			Goods total	113.58
			Delivery	0.00
			Receipt total	113.58

The sum of £113.58 has been deducted from credit card ending 1234 – Thank you.

Please note that plants and non-plant items are despatched separately. A copy of this receipt will be included with each delivery.

Appendix 4 – A mail order receipt – cheque payment

Progress Plants

Rectory Avenue

Arley

B12 4QQ

Telephone 0161 721 9010   Fax 0161 721 9011

VAT 675476909

Mail Order Receipt

Order No: QW3471   **Order Date:** 25/05/10

Product code	Description	Quantity	Unit Price (£)	Line Total (£)
P0213	Clematis Nelly Moser	2	5.95	11.90
P0365	Clematis Montana Alba	1	5.95	5.95
P0423	Acer palmatum Orange Dream	2	13.95	27.90
5061	Lightweight shears	1	19.95	19.95
4319	8 cm terracotta pot	1	not available	0.00
			Goods total	65.70
			Delivery	8.50
			Receipt total	74.20

Paid by cheque value £81.19 – Thank you.

Refund £6.99 – a cheque for this value has been despatched to you.

Please note that plants and non-plant items are despatched separately. A copy of this receipt will be included with each delivery.

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