SPECIMEN

Advanced Subsidiary GCE (or Advanced GCE)

APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY

G041/CASE STUDY

Unit G041: How Organisations Use ICT

Pre-Released Material

Candidates answer on the question paper.

Additional materials:

INSTRUCTIONS TO 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.

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

Make sure that your name and centre number is on each page.

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.

This document consists of **11** printed pages and **1** blank page.

Task 1

Carry out your own research and make notes which:

- describe the functions of the sections and the roles of the personnel within Logos R Us
- describe the organisational structure of Logos R Us
- describe the main processes carried out by Logos R Us, including the inputs, processing and calculations, and the outputs involved, as well as links to external organisations
- describe the ICT systems used in Logos R Us
- identify the strengths and weaknesses of the ICT systems used in Logos R Us; recommend and explain improvements/extensions to the systems in relation to the needs of the company
- explain how legislation relating to ICT affects Logos R Us.

Task 2

Logos R Us orders newly designed garments twice a year. The stock levels of these must then be maintained.

Draw a diagram to explain how information moves, within Logos R Us and with outsiders, during the process of ordering newly designed garments and maintaining stock levels. The process starts when the design team complete a new design and finishes when payment has been authorised.

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

Several of the directors and managers of Logos R Us spend a lot of time away from head office.

Carry out some research and produce a word-processed report for the Managing Director. Your report must evaluate the impact on **Logos R Us and its directors and managers** of providing them with mobile devices.

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 should 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]

Logos R Us case study

Introduction

Logos R Us is a company that sells a wide range of clothing embroidered with customer-supplied logos. The range includes uniforms for schools and other organisations, sports clothing for teams and clubs, and merchandising items, such as polo shirts or sweatshirts, for events. The company has a head office, a warehouse and an embroidery workshop. The head office is on a business park while the warehouse and embroidery workshop are on an industrial site some distance away. The clothing is made by a number of outside manufacturers, both in the UK and overseas.

Goods supplied

The company offers a standard range of garment designs. These are displayed in a catalogue which is updated twice a year. A team of designers design new garments each season and the designs are sent to different manufacturers to be produced. Stocks of the standard range are kept in the warehouse. Customers select the design and colour they require and where on the garment they want the logo embroidered. The garments are picked from the warehouse and the logos are embroidered in the embroidery workshop.

Staffing and job functions (see Appendix 1)

The company is run by a Managing Director. There are four divisions within the company, each run by an assistant director. These are New Business, Product Development, Finance and Administration, and Operations. Within each division there are a number of departments. For example, within the Finance and Administration Division are the human resources, administration and accounts departments. All four divisions are based in the head office but the Operations Division also includes the warehouse and the embroidery workshop.

New Business

The Sales Manager is responsible for securing sales for the company. When potential customers contact the company, it is the Sales Manager who will respond to their enquiry. Much of the Sales Manager's time is spent 'on the road' visiting customers' premises to discuss their requirements and take orders. The Sales Manager also manages a team of order processing clerks. The order processing clerks are responsible for entering orders onto a sales order processing system. They also send invoices, track the progress of orders and inform customers of expected delivery dates. One of the main responsibilities of the marketing department is liaising with the design department to produce an updated catalogue twice a year. The marketing department runs stands at trade shows to publicise the catalogue. The department is also responsible for all other advertising of the company and its product range and carrying out market research.

Product Development

The two departments in this division work closely together. The Research and Development Manager uses the results of market research to determine consumer trends. This manager also finds out about new materials and techniques and obtains samples for testing. This may involve visiting manufacturers both in the UK and overseas to find out about the techniques being used and what they are capable of producing. The research assistants carry out tests on material samples and the development assistants produce prototype garments. The design department must design new garments twice a year which are to be included in the catalogue. They will use information from research and development to assist in this process. The Chief Designer will also visit fashion shows and trade fairs to gain design ideas. The finished designs will be passed to the development assistants so that prototype garments can be made.

Operations

The Operations Director is responsible for ensuring all orders are produced and delivered to the customer. As part of this responsibility, the Operations Director oversees the work of the warehouse and embroidery workshop. The Operations Director also negotiates contracts with manufacturers to produce the garments and, in consultation with the New Business Director, ensures sufficient stock of standard garments are ordered. Both of these responsibilities mean that the Operations Director is often out of the office, either travelling between the two sites, or visiting manufacturers, both in the UK and overseas.

The Warehouse Manager and assistants are responsible for keeping track of the stock in the warehouse and picking the garments required for an order. These are then sent to the embroidery workshop so that the logos can be embroidered. This is the responsibility of the Chief Embroiderer and embroiderers.

Members of the distribution staff are responsible for packing the completed garments for shipment, putting delivery notes in the parcels, printing courier waybills (see Appendix 2) and telephoning the courier service to book a courier to collect the parcels. They then hand the parcels to the courier who delivers them to the customer.

The Operations Director also oversees the work of the ICT services department. This department is made up of a Network Manager and two ICT technicians. The main responsibility of this department is ensuring that all the company's ICT systems are functioning effectively. This includes management of the head office local area network (LAN), organising backups, installing new software, hardware and upgrades, monitoring software licences and running a help desk to solve user problems. If there is a problem with the ICT systems in the warehouse or embroidery workshop, an ICT technician must travel to the site to try to solve it.

ICT systems in the head office

All the computers in the head office are connected in a LAN with a single server. A router provides a broadband connection to the Internet that can be used from all workstations. Each member of the head office staff has a workstation on their desk. There is at least one networked black and white laser printer in each department. The marketing department has a high quality colour laser printer. This is connected to one of the department's workstations and set up as a local printer. All the standard office software is stored on the server, as is desktop publishing software and the sales order processing software. The sales department have a scanner for scanning in customer logos. All data is also stored on the server and can be accessed from all workstations, but only by staff who are entitled to do so. For example, only staff in the HR department can access personnel records.

ICT systems in the warehouse and workshop

In the warehouse there are three workstations linked in a peer-to-peer network. The Warehouse Manager's workstation holds the stock database. It also holds a simple database of customers' orders and delivery addresses. One of the other workstations is used by warehouse assistants to update the stock database when goods are received or removed from stock to make up an order. There is a black and white laser printer attached to this workstation that is used to print delivery notes to be included with the goods. The delivery notes are produced using a template in a word processing package that is mail merged with the database of customers' orders. The printer can also be used from the Warehouse Manager's workstation. The third workstation is used by the distribution clerks. This workstation is used almost exclusively to print delivery addresses on courier waybills (Appendix 2). These are pre-printed 4-part carbonised documents so must be printed using a dot-matrix printer, which is attached to the workstation. A word-processed template is also used for this task so that the addresses are printed in the correct position. The delivery addresses are mail merged from the database on the Warehouse Manager's workstation.

In the embroidery workshop there is a stand-alone computer that controls a number of embroidery machines. There is a scanner attached to this computer for scanning in the logos. Specialist software n the computer converts the image into a control file that is used to control the embroidery machines to embroider the logo. The control files are stored on the computer's hard drive so that they can be used again if the customer orders more garments. A small thermal printer is also attached to the computer.

Procedures for processing orders

All potential customers must telephone the company to enquire about placing an order. The Sales Manager telephones to arrange an appointment to visit the customer. During the visit the Sales Manager shows the customer the current catalogue and writes down their equirements on an order form (see Appendix 3). The customer must provide a colour picture of the logo to be embroidered.

On returning to head office, the Sales Manager hands the order form and picture of the logo to an order processing clerk. The order processing clerk enters the details of the order into a sales order processing system (Fig 1).

Fig. 1

All existing customers are sent a copy of each new catalogue when it is produced. This includes a copy of the order form, which has the customer's ID printed on it. The customer completes and sends the order form directly to the sales department. A picture of the logo is only required if it has changed since the last order was made.

A unique customer ID and a unique order number are generated by the system. If the customer is new, all their details must be entered as well as the item numbers, sizes, colours and quantities of the garments required and the position of the logo on each. The order processing clerk also scans the picture of the logo and saves the image in the customer's record. For existing customer orders, the sales order processing clerk enters the customer ID on the order form and all their details are looked up and displayed.

The item number and size is used to look up the description and unit price of each garment. The unit price is multiplied by the quantity to give an item total. The item totals are then added to give a sub-total. Finally, VAT is calculated and added. These details are added to an invoice which the order processing clerk prints out and posts to the customer (see Appendix 4). An email is sent to the accounts department to inform them that an invoice has been sent. The accounts clerk accesses the invoice details from the sales order processing system so that they know what payment is expected.

The system also produces a copy of the order, which is printed out. For new customers, the order processing clerk attaches the picture of the logo to the printed order. The printed order is sent to the warehouse by internal mail.

Procedures for filling orders

When the printed order reaches the warehouse, the Warehouse Manager enters the customer and order details into the database. The Warehouse Manager hands the printed order to a warehouse assistant who picks the order. The assistant enters the item number, size, colour and quantity of garments removed from stock into the computer so that the stock database can be updated.

The warehouse assistant then takes the garments through to the embroidery workshop and hands the printed order to the Chief Embroiderer. If it is a new customer, the Chief Embroiderer scans the logo and saves the control file using the unique customer ID as the filename. For existing customers, the Chief Embroiderer calls up the control file by entering the customer ID. The Chief Embroiderer also enters the required position(s) for the logo using the keyboard. The embroidery machines each have four holders for different thread colours and the embroiderer must ensure that the correct colour thread is loaded in each holder. The software compares the colours in the logo with a database of available thread colours and identifies the four thread colours to be used. The thermal printer is used to print out a slip that includes the customer ID, the colour thread for each holder and the required logo position(s) (Fig. 2). The slip is handed to an embroiderer to carry out the work.

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Customer BA123

Garment PS Logo      Posn LS
Garment SS Logo      Posn LC

Thread 1             21
Thread 2             34
Thread 3             11
Thread 4             45
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Fig. 2

When the embroidery is completed, the garments and the printed order are passed back to the warehouse. A warehouse assistant prints out two copies of the delivery note. One copy is handed with the garments to a distribution clerk, the second copy is sent by internal mail to the accounts department so that they know payment is due.

The distribution clerk packs the garments for shipment, enclosing the delivery note. They then print out a courier waybill and place it in a plastic pocket on the outside of the parcel. The distribution clerk telephones the courier company to book a pickup for the parcels. When the courier arrives, the distribution clerk hands the parcels to the courier. The courier initials and dates the waybill and hands the back copy to the distribution clerk. The courier delivers the parcels to the customer with one copy of the waybill attached.

On receipt of the garments, the customer sends payment to the accounts department.

Stock control and ordering procedures

When new garments are designed, the design team sends the designs to the Operations Director by internal mail. The Operations Director visits the manufacturer to hand over the designs and discuss the production requirements. When the first batch of garments has been made, the manufacturer sends them, along with a delivery note, by courier to the warehouse.

When new garments are first received in the warehouse their details must be added to the stock database. The Warehouse Manager inputs the manufacturer ID, item number, description, available sizes, and available colours. The total number of each size and colour is also entered.
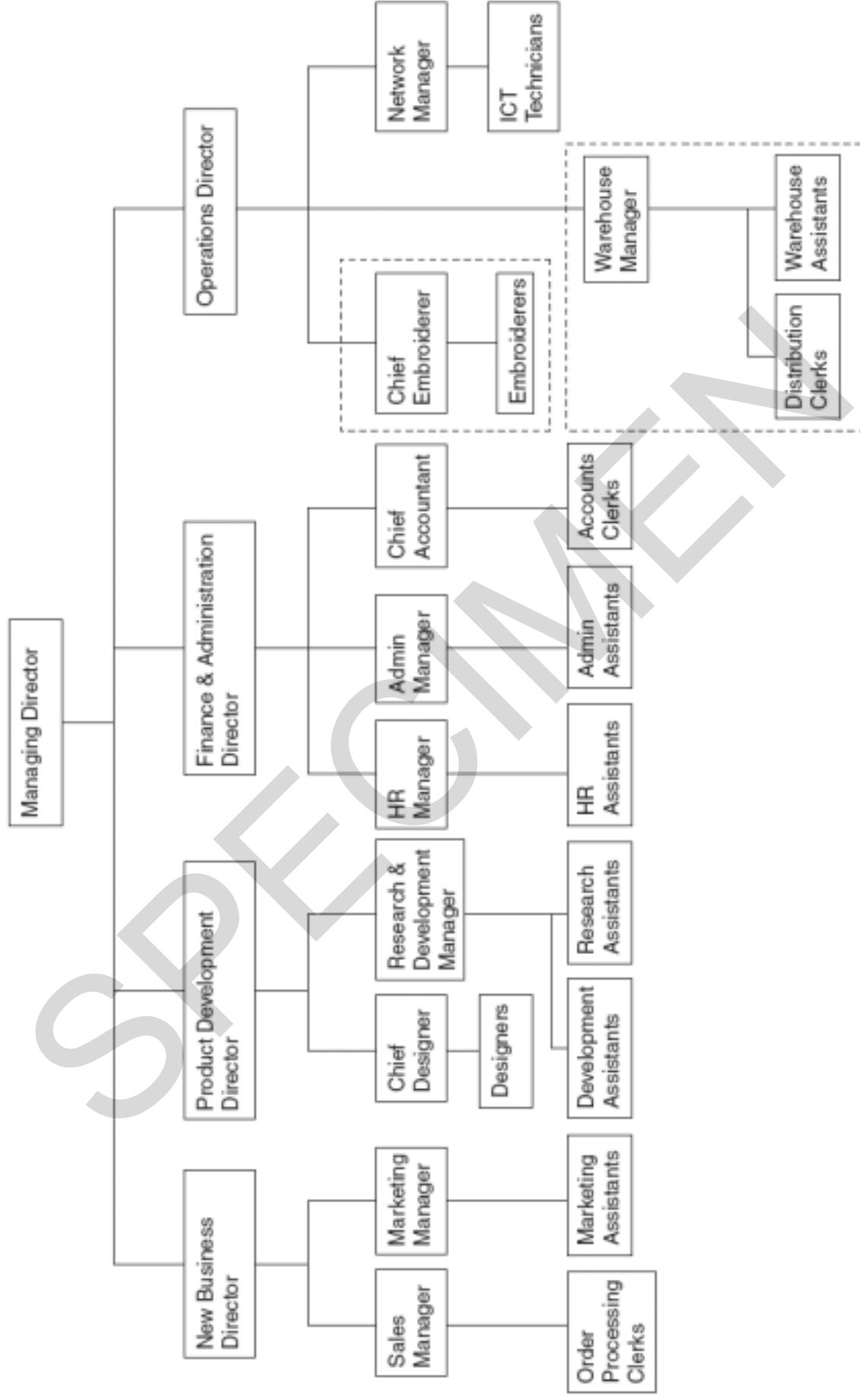
When a warehouse assistant picks garments for an order, they use the keyboard to enter the item number of each type of garment into a data input screen. The description is displayed to verify the item number. The size and colour are then selected from drop-down lists and the quantity being removed from stock is keyed in. When the 'Remove' button is clicked the quantity is subtracted from the number in stock. When additional stock is received, the same procedure is followed but clicking the 'Add' button adds the quantity to the number in stock.

Each time items are removed from stock, the number remaining is compared with the re-order level. If the number remaining is equal to or less than the re-order level, the item is added to an order list. When more than three garments from a particular manufacturer are listed, the system uses the required stock level and the number remaining of each item to calculate the number to be ordered. The manufacturer details are looked up using the manufacturer ID and a purchase order is generated. The system alerts the Warehouse Manager that an order needs to be sent.

The Warehouse Manager checks the purchase order on screen and decides whether to accept or override the number of each garment to be ordered, before printing two copies. One copy is posted to the manufacturer and the other is sent to the accounts department by internal mail. As before, the garments are sent by courier along with a delivery note.

The manufacturer posts invoices to the accounts department. The Warehouse Manager passes the delivery notes to the accounts department by internal mail. In the accounts department the delivery notes and invoices are matched so that payment can be authorised.

Appendix 1 – Organisational Structure

Managing Director

- New Business Director
  - Sales Manager
    - Order Processing Clerks
  - Marketing Manager
    - Marketing Assistants
- Product Development Director
  - Chief Designer
    - Designers
  - Research & Development Manager
    - Development Assistants
    - Research Assistants
- Finance & Administration Director
  - HR Manager
    - HR Assistants
  - Admin Manager
    - Admin Assistants
  - Chief Accountant
    - Accounts Clerks
- Operations Director
  - Chief Embroiderer
    - Embroiderers
  - Warehouse Manager
    - Distribution Clerks
    - Warehouse Assistants
  - Network Manager
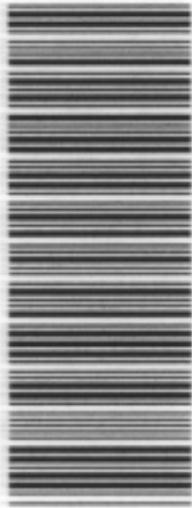   - ICT Technicians

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Appendix 2 – A courier waybill

Shipment Waybill

377 5147 095

From (Shipper)

Shipper's Account Number

Contact Name

Shipper's reference

Company Name

Address

Phone, Fax or E-mail (required)

Postcode (required)

To (Receiver)

Company Name

Country

Delivery Address

Postcode (required)

Phone, Fax or E-mail (required)

Contact Name

Shipment details

Total number of packages

Total Weight

Kg . gr

Dimensions in cm		
Pieces	Length	Width	Height
....	ø	x	x
....	ø	x	x
....	ø	x	x
....	ø	x	x

Shipper's agreement (Signature required)

I agree to the terms and conditions included overleaf.

Signature

Date / /

Picked up by

Route No.

Time

Date

Appendix 3 – Order form

Logos R Us

Order Form

Organisation Details

Name of Organisation	BANKS HIGH SCHOOL
Contact Person	MR S LEES
Registered Address	THE HIGH ROAD NEWTOWN, WILTS, NTI 6AS
Delivery Address	AS ABOVE
Contact Telephone	0124 678910

Garment Details

Item No	Description	Colour	Size	Quantity	Logo Posn
SS121	Sweatshirt (child)	Red	L	100	LS
SS122	Sweatshirt (Adult)	Red	XS	100	LS
SS122	" "	"	S	100	LS
SS122	"	"	M	100	LS
PS011	Poloshirt (Adult)	Yellow	S	150	RC
PS011	"	"	M	150	RC

Colour picture of logo provided ☑

Logo Position Codes:
LS = left sleeve
RS = right sleeve
LC = left chest
RC = right chest
CB = centre back
UB = upper back
C(L) = left collar
C(R) = right collar
C(B) = back collar

Appendix 4 – Invoice

Logos R Us

Invoice

Invoice No: 07BA127

Date: 25 November 2007

For the attention of:

Mr S Lees
Banks High School
The High Road
Newtown
Wilts NT1 6AS

Payment to:
The Accounts Department
Logos R Us
Excelsior Business Park
Anytown
AT6 7AT

Item No	Description	Colour	Size	Quantity	Unit Price (£)	Total (£)
SS121	Child sweatshirt	Red	L	100	7.50	750.00
SS122	Adult sweatshirt	Red	XS	100	7.50	750.00
SS122	Adult sweatshirt	Red	S	100	8.00	800.00
SS122	Adult sweatshirt	Red	M	100	8.50	850.00
PS011	Adult polo shirt	Yellow	S	150	5.95	892.50
PS011	Adult polo shirt	Yellow	M	150	6.45	967.50
					Sub-total	5010.00
					VAT	876.75
					Invoice Total	5886.75

Please make cheques payable to Logos R Us Ltd

Terms: Payment within 28 days of invoice date.

Registered Office: Unit 14, Excelsior Business Park, Anytown, AT6 7AT, Telephone: 0109 123456, Facsimile: 0109 123457