OXFORD CAMBRIDGE AND RSA EXAMINATIONS
ADVANCED SUBSIDIARY GCE

G041/IC

APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY

Unit 2: How Organisations Use ICT

INSTRUCTIONS FOR CANDIDATES

JUNE 2009:

To be opened on receipt

SUITABLE FOR VISUALLY IMPAIRED CANDIDATES

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 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 <u>MUST NOT</u> 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 functions of the sections and the roles of the personnel within Bedrooms4U
- identify the different types of customers of, and suppliers to, Bedrooms4U; describe the information passed between each and Bedrooms4U, the staff involved and the communication methods used
- describe the main processes carried out by Bedrooms4U, including the inputs, the processing and calculations, and the outputs involved
- describe the ICT systems used in Bedrooms4U
- explain the impact of the increased use of ICT on the working practices of Bedrooms4U and on the methods of production used in the factory
- explain how legislation relating to ICT affects Bedrooms4U.

TASK 2

A customer places an order for a fitted bedroom with Bedrooms4U.

Draw a diagram to explain how information moves, within Bedrooms4U and with outsiders, during the processing of the order. The process starts when the order and deposit are received in head office and finishes when an invoice is produced.

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

The Managing Director is concerned that limitations in the company's ICT systems are hampering communication.

Carry out some research and produce a word-processed report for the Managing Director. Your report must evaluate possible changes to the company's ICT systems to improve communication in relation to Bedrooms4U and its staff.

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

The work you produce for Task 3 <u>MUST NOT</u> exceed 500 words, including the evaluation of the methods you used.

You <u>MUST</u> include a word count.

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

You <u>MUST</u> acknowledge all information sources you used. This is not included in the 500 words.

[15]

BEDROOMS4U CASE STUDY

INTRODUCTION

Bedrooms4U is a company that supplies and installs fitted bedrooms to meet customers' requirements. The company has a head office and warehouse on two separate sites on an out-of-town business park. The company also has a factory where the bedroom furniture is manufactured. This is on an industrial estate some distance away. There are a number of showrooms, in town centres and shopping centres, where potential customers can view examples of the fitted bedrooms that can be supplied. In addition to selling fitted bedrooms to the public, the company also manufactures and installs fitted bedrooms in hotels. House builders also order fitted-bedroom furniture in bulk for installation in new housing developments.

GOODS SUPPLIED

The company supplies wardrobes and cupboards, drawer units, bed frames and headboards in a wide range of sizes, styles and finishes. These are manufactured in the company's factory. Stocks of handles, clothes rails and other internal fittings, such as shoe racks, are kept in the warehouse. To complete the bedroom, the company can also supply carpets and curtains. These are ordered directly from the manufacturer as required.

STAFFING AND JOB FUNCTIONS (SEE APPENDIX 1)

The company is run by a Managing Director 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 production, warehousing and distribution. This director also oversees the work of the ICT technicians.

FINANCE AND ADMINISTRATION

The Finance and Administration Director is responsible for accounts, human resources (HR) and general administration. All of these job functions are based in the head office.

Accounts staff keep records of all financial transactions. The records include income received from sales, payments made for supplies and raw materials, payments to contractors, as well as staff wages and commission. The accounts staff arrange for payments to be made using an on-line banking facility. The accounts staff also carry out activities relating to customer orders including receiving deposits, accessing the order details on the sales order processing (SOP) system, entering the amount of the deposit, printing invoices and posting them to customers, and notifying HR when final payments are received.

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, commission 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.

General administration involves the day-to-day tasks carried out in an office, such as dealing with correspondence and ordering office supplies.

SALES AND MARKETING

The Sales and Marketing Director is responsible for the marketing and order processing functions within head office. House builders or hotels who want to place bulk orders contact this director, who negotiates a price and liaises with the Operations Director, to ensure the requirements can be met. A contract is then drawn up detailing the goods to be supplied and the agreed price.

Part of the marketing staff's role is advertising the company. They produce glossy brochures to display the company's products, including photographs of bedrooms that have been installed. A freelance photographer is hired to take the photographs. As part of the contract with Bedrooms4U, the photographer agrees to transfer the image rights to the company.

The Sales and Marketing Director is also responsible for overseeing all the showrooms. Each showroom is run by a branch manager. The manager is responsible for managing a team of salespeople, a team of installation engineers and a small number of administration assistants. The salespeople interact with potential customers in the showroom to encourage them to order a fitted bedroom. They also visit customers' homes to measure the bedroom and finalise the order. The installation engineers then install the fitted bedrooms. When specialist skills, such as carpet laying, are required, contractors are brought in to do the work.

The administration assistants in each showroom keep a diary for each of the salespeople. They produce and send out all correspondence from the showroom, including letters to customers. The administration assistants also produce confirmation purchase orders for goods and services, including those for contractors. They check all invoices received against copies of these purchase orders before passing the invoices to head office for payment.

ICT SYSTEMS IN THE HEAD OFFICE

All the computers in the head office are connected in a local area network (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 laser printer in each department. All the standard office software is stored on the server, as is the SOP software. 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 accounts staff can access financial records.

ICT SYSTEMS IN THE SHOWROOMS

Each salesperson has a high specification laptop computer. These have a bespoke design package installed on them. Each showroom has its own LAN. When in the showroom, each laptop computer can be connected to this LAN using a docking station. This provides a standard keyboard and mouse and a 19" flat-screen monitor to reduce the health and safety issues associated with using laptop computers for extended periods. The administration assistants each have a desktop computer linked to the LAN with access to standard office software. A networked colour laser printer provides printing facilities for all workstations. All workstations have broadband internet access.

ICT SYSTEMS IN THE WAREHOUSE

In the warehouse there is a stand-alone computer with a barcode reader and a laser printer attached. The only software on this computer is the database of stock currently held in the warehouse. The software has separate data entry forms for adding and removing stock. This software also allows the warehouse manager to produce a number of reports, including purchase orders for more stock.

PROCEDURES FOR BUYING A FITTED BEDROOM

Potential customers visit one of the company's showrooms. The showroom contains examples of complete bedrooms for customers to inspect and samples of the different materials and finishes available. Salespeople are available to help the customer decide on the type of fitted bedroom they want.

When the customer has made a provisional decision on the type of bedroom required, the salesperson writes down the customer's name and contact details on an appointment card. A copy of this is handed to one of the administration assistants who enters the appointment in the salesperson's diary.

At the appointment, the salesperson measures the bedroom (length, width, position and size of windows and doors) and discusses the customer's requirements in detail. The dimensions of the bedroom are entered into the design software to create a scale drawing of the bedroom and the salesperson selects and positions the furniture required from a library of icons (see Fig. 1). The salesperson then selects the required material, finish, handles, and internal fittings from drop-down lists, as well as the colour and design of the carpet and curtains, if required. The software uses this information to render the design and produce a 3-D image of the finished bedroom on screen. The design can be adjusted until the customer is happy with the result. Their name and contact details are added to the design, which is saved on the laptop computer's hard drive.
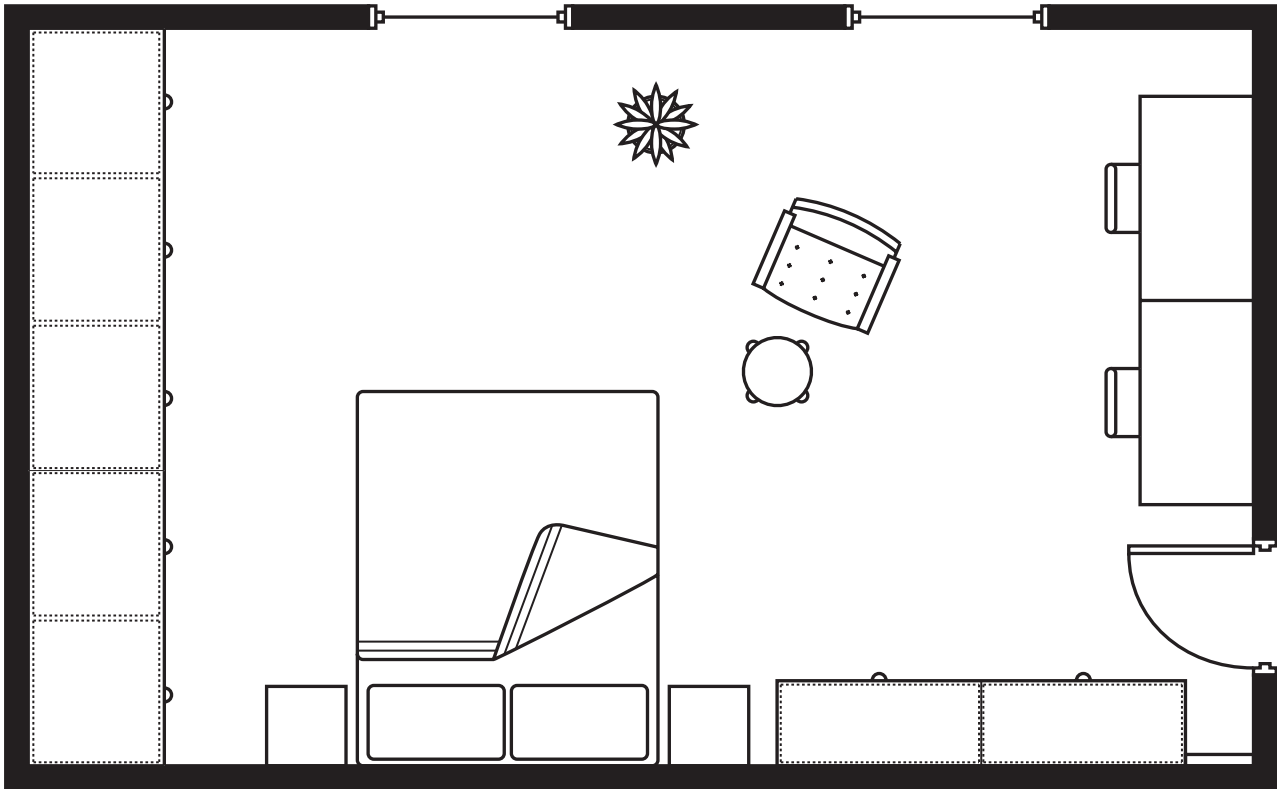
Fig. 1

On returning to the showroom, the salesperson meets with the branch manager to check the design, if necessary, and obtain the labour cost for installing the bedroom. Any necessary adjustments are made and the system produces a final design. The software then generates a list of all the parts needed with their costs. The total cost of parts is calculated. The salesperson enters the labour costs. The software adds this to the cost of parts and calculates and adds VAT. A quotation that includes an order form is created (see Appendix 2). The salesperson emails the final design and quotation to one of the administration assistants who prints the design and two copies of the quotation and posts them to the customer. If the order is placed, the salesperson will receive commission on the order, so the order form includes the salesperson's name.

If the quotation is acceptable, the customer completes the order form on one copy of the quotation and posts it to the company's head office with a deposit of 25% of the total cost.

ORDER PROCESSING PROCEDURES

When an order form and deposit are received in the head office, an order-processing clerk enters the details of the order into the SOP software using data entry forms (See Fig. 2 on the separate sheet).

The product number is entered using a drop-down list and the quantity is entered using the keyboard. The product number is used to search the stock database to display the item description and price. The system multiplies the unit price by the quantity to give the total price for that item. The cost of any ordered items such as carpets is keyed in. The total order value is then calculated by the system and added to the sales of the named salesperson. The labour cost for installation is entered and added before VAT is calculated and added to give the final cost.

A printed copy of the order is sent to the warehouse manager by internal mail. The warehouse manager checks the availability of the parts needed. If any of the company-manufactured items are not in stock, the warehouse manager sends a special order by fax to the production manager in the factory. The production manager confirms the order and sends back a completion date by fax.

The warehouse manager telephones the relevant branch manager with the date when all items will be available. The branch manager checks the availability of the installation engineers and any contractors needed to install the bedroom, and produces an installation schedule. This is emailed to the order-processing clerk. The proposed installation date is entered into the SOP software.

The order-processing clerk generates purchase orders for any carpet or curtains required and posts them to the appropriate manufacturers. These orders include the name and address of the customer, as the goods are delivered directly to the customer's address. The order also includes an agreed delivery date to coincide with the installation schedule.

The order-processing clerk passes the deposit to the accounts staff by internal mail. A member of accounts staff accesses the order details and enters the amount of the deposit, which is deducted from the final cost. An invoice is created and printed (See Appendix 3). This is posted to the customer. The customer must pay a further 50% of the final cost before installation commences and the final 25% on completion. The invoice shows the proposed installation date and the dates for the remaining two payments. When the final payment is received, the accounts staff notify HR so that the salesperson's commission can be paid.

PROCEDURES IN THE WAREHOUSE

All furniture manufactured in the factory and stock items obtained from elsewhere, such as handles, have a barcode attached. When new stock arrives, the barcode is scanned and the quantity of that item is entered using the keyboard. The quantity is added to the number_in_stock field for that item in the stock database. Similarly, when goods are removed to fill an order, the same inputs are made but the quantity is deducted.

The warehouse manager is able to input the product number of any item to check whether there are any in stock. The stock level of the item is displayed on screen. The warehouse manager is responsible for ordering the stocks of handles, clothes rails and other internal fittings. Once a month the stock level of these items is checked and purchase orders posted to approved suppliers, although emergency orders can be placed by telephone.

FUTURE IMPROVEMENTS

Currently, the production of furniture in the factory is very labour-intensive, involving many manual processes. This is expensive and leads to high levels of wastage. The Operations Director is investigating the introduction of computer aided manufacturing to improve the company's ability to compete with other fitted bedroom companies.

The Managing Director is concerned that limitations in the company's ICT systems are hampering communication between the different sites and personnel. The Managing Director is determined to upgrade the ICT systems to improve communication and offer greater flexibility to staff.

Bedrooms4U has a website but this is currently only used to display pictures of example bedrooms and provide a list of showrooms. The Sales and Marketing Director of Bedrooms4U wants to use the company's website to its full potential.