
Unit 5

Revision Book

Intermediate GNVQ

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Exam Questions

1. What are the advantages and disadvantages of a card based catalogue in a library?

Ads: It is easy to use, you do not need any training to use it, it is cheap

Disadv: Only one person can use it at once, it can be hard to find things compared to a computer-based search

2. What is the Dewey system, why is it used and how is it used?

The Dewey system is a way of numbering books by subject. It makes it easy to find books if you are interested in a particular subject e.g, Maths or Music. There are indexes used to identify which subject is which number.

3. What are the advantages and disadvantages of email over using a phone or fax?

Email is cheaper, you can send documents for editing, you can send an email to lots of different people at the same time, and you can leave emails for people even if they are not in

Phone is quicker (it is instant whereas email can take an hour or two), you know whether someone has understood your message or not, you can't email printed documents but you can fax them

4. What are the functions and data requirements of these departments: HR, Finance and Marketing

HR

Looks after promoting, hiring, firing and training the workers. They need to have information about each employee, pay, training, skills etc..

Finance

They look after paying bills and collecting money from sales. They draw up budgets and accounts for the company as well. They will need all the financial information - sales receipts, purchases, costs, salaries etc...

Marketing

They look after advertising products and doing market research to improve old products and develop new ones. They need information on current sales to see what is

selling well, DTP for producing adverts and software to analyse the results from market research.

5. How can data be kept secure on an ICT system and why must it be kept secure?

Passwords, anti-virus, firewalls and backups

Companies can lose a lot of money if they lose their data e.g. Current orders or customer lists

6. What methods of internal communication could a company use?

Within the company - Phone, email, memo, intranet pages, newsletter, meetings

7. What methods of external communication could a company use?

Communication that goes outside the company - Brochures, Internet, business letters, adverts

8. What information is typically on a company Internet site?

Contact details for customer service, product details, help for fixing their products, job vacancies. E.g. look at the www.dyson.co.uk web site

9. What ICT based sources of information would you use to find out about a holiday destination?

The Internet, Teletext, CD-ROMs - Atlas

10. What paper based sources of information would you use to find out about a holiday destination?

Travel agents brochures, books

11. What features of an encyclopaedia help you to find information in it?

Index, headings in alphabetical order, table of contents, glossary

12. What is information overload and how can it be reduced?

Where someone has access to so much information that they can't find the important information. E.g. Miss Crossley's brother once received 1,000 emails in one week. It

can be reduced by asking people to only email or print off essential information and provide summaries.

13. What are the advantages and disadvantages of Internet/one line shopping?

Advantages

- You can buy things without travelling
- You can order things 24 hours a day
- The web sites have a very large stock

Disadvantages

- You can't try things on
- You have to pay for and wait for delivery

Paper Based Documents

Types of source

- Encyclopedia - arranged by topics in alphabetical order
- Dictionaries
- Newspapers - daily so up to date
- Magazines - weekly so not as up to date as newspapers
- Yellow pages - used to find suppliers and other businesses, arranged by type e.g. all the TV repair companies are together

Searching paper based sources

To make information in paper based resources easy to find the content must be organised. Use an index, table of contents & page headings

Comparing Computers based catalogues to paper based catalogues

Books:

- Easy to use
- Cheap per copy
- Easily transportable

Computers:

- Can be tricky to use for non computer literate people
- Need to be careful when searching to avoid information overload
- Fixed in place - need to print things out
- Multimedia features - sound or animation
- They are quick to find things as long as you refine your search

Dewey

This system uses numbers to organize the books in a library. It was designed by someone called Melvil Dewey. e.g.

500-599 - Science

700-799 - Art

Card based catalogues in a library

Small cards with details of the books on them.

Sorted in alphabetical order by the name of the author, or the name of the book or the subject.

Card catalogues are easy to use, don't break down like computers and don't have any security problems unlike computers, but computers are much quicker at finding things because you can set the search criteria in lots of different ways, it is easy to print new details and cards are easy to lose.

Transferring paper based information

It can be carried, scanned into a computer and email or photocopied.

ICT Based Sources

Types of source

CD-ROM - Easy to carry, fast, cheap, can hold multimedia, fixed data

Teletext - Cheap, updated regularly, one way communication, poor pictures

Internet - Vast content, quick to access, difficult to find some things, biased content, not trustworthy, information overload

Intranet - e.g. S drive and W drive, good content but only accessible in school

Transferring ICT based information

Use a floppy disk or CD-ROM, send files by email files, download files from the Internet.

You can also cut and paste information into a word processor document

Input and Output devices

Input: Keyboard, mouse

Output: Monitor, printer

CD-ROMs compared to the Internet

The information in a CD-ROM can be checked to make sure it is correct, but it is fixed so it can't hold today's weather for example.

The Internet is up to date but is not necessarily reliable. If you stick to the big companies though, BBC, Yahoo etc... The information will probably be correct.

Finding information

Computers can find things very fast but you must plan your search and be specific. Try searching for football in Google and you will find hundreds of thousands of links.

Example

- Sport - finds 42 600 000 links

You can also use OR & AND to find things. E.g.

Find **Manchester united OR Manchester city** will find pages about Manchester United or Manchester City football clubs.

Refining the search

Refining the search means adding more words to make the search more specific and so reduce the amount of web pages that the search finds:

- Football - finds 20 200 000 links
- Football and united - finds 1 710 000 links
- Football Manchester united - finds 394 000 links
- Football Manchester united official - finds 82 500 links

The Internet

Finding information on the Internet

To find things you must take the following steps:

1. Go on-line/log on to Internet/load browser
2. Load search engine.
3. Type in keywords (1) /such as World Cup England (1)
4. look through the list of hits
5. if there is too many refine search (see below)
6. Select web site from list
7. Make hard copy/notes

Directories

You can also use a directory to find things such as one on www.yahoo.co.uk. These are easier to use but can be slower because you have to click on several layers of links to find what you want.

E.g. To find Manchester United Football club you have to click on these links:

Recreation and sport -> sport -> football -> clubs and teams -> United Kingdom -> premiership clubs -> Manchester united

Accuracy

The Internet does not have anyone checking the content so some information is not necessarily accurate and can be biased. There are also many criminals using the Internet to steal money, terrorists, and paedophiles and so on, so be very careful.

Example: There are lots of health sites on the Internet and many of them recommend certain treatments. Although they look scientific they can often be just adverts trying to look convincing.

On line shopping

You can use the Internet for shopping e.g. www.amazon.co.uk

Advantages

- You can buy things without travelling
- You can order things 24 hours a day
- The web sites have a very large stock

Disadvantages

- You can't try things on
- You have to pay for and wait for delivery

Communication

Internal and external communication

Internal - communication within a company e.g. memos, newsletters or notice boards

External - communication between someone inside a company and someone outside e.g. a customer, a supplier, the taxman or Government officials

Methods of communication

- Post
- Mobile and normal phones - instant but person must be in
- WAP phones - WAP is very poor compared to the real Internet.
- Fax - send scanned documents to another fax that prints them out. Include a fax header
- Emails
- Video conferencing

Video conferencing

This is where people hold a meeting using web cams and microphones instead of going to see each other. It saves time and money but the quality is poor and it can be better to talk to people face to face about important things.

Emails

- Emails are cheap to send
- you can send one to lots of people at the same time
- you can attach documents ready for editing
- you can send multimedia files

BUT

- They can be easily read so they must be encrypted
- They are often used to spread viruses
- Many people receive SPAM email that blocks their inboxes

To send an email you need an email package, a modem, a phone line, an Internet account and an email address

Comparing communication methods

If someone wanted to communicate the details of their wedding they can use the following methods:

- **Letters in the post** - slow delivery, takes a while to get a response, lots of printing and writing out of addresses
- **Fax** - low quality, takes a long time to do, no easy way to respond, some people don't have faxes
- **Email** - privacy concerns, security problems
- **Phone** - The person might not be in, it can cost a lot if people live abroad

Networks

There are two types of network

- **LAN** - a network within a building or company. Uses cables
- **WAN** - a network that joins together computers from different parts of the world. Uses satellites and the phone network

Why use networks?

Networks allow people to share files, printers and Internet connections, send email and share software.

Server

A **server** is a large computer that holds all the files for the network e.g. all of your work is held in a server in the technician's room. It is used because it makes it easy to find files because they all in the same place.

Company Intranet

A company intranet is a web site only for us within a company. It holds information such as:

- Job vacancies
- Forms and templates
- Links to websites
- Company newsletters
- Financial information such as profits and sales
- Training activities for staff

Compared to the Internet it is better because:

- The data can't be accessed by anyone outside the company so it is secure
- Different branches of the company can communicate

Company Internet

A company Internet page holds information such as:

- Contact details
- Product details
- A shop
- Advice on how to fix things that go wrong (technical support)
- On line database pages to capture data e.g. for registration

HTML & Hypertext

HTML is the language used to create web pages e.g.

` Hello `

displays **Hello** in bold

Hypertext is text that has a hyperlink on it e.g. [yahoo](http://yahoo.com) takes you to the yahoo web page

Information in Organisations

External Agencies

Companies must communicate with various external agencies e.g.

- Customers
- Suppliers
- The tax man
- The government about environmental laws for example

Doing Market Research

A company can find out what its customers want by doing market research. This involves asking people to fill in questionnaires and entering the results into spreadsheet software to analyse it e.g. Find the number of boys and number of girls who like Vanilla Coca Cola. The Marketing Department usually does this. The problem with questionnaires is that people don't always tell the truth on them and some don't get filled in and returned.

Human Resources Department

Hires people, fires people, organizes training and development of staff.

It requires information about staff - salaries, address, training, skills, qualifications

Finance Department

Collects sales information, sends out invoices asking for payment, pays salaries, pays suppliers and produces the company accounts.

It requires sales information, salary information, orders and other financial information

Marketing & sales Department

Responsible for advertising and market research to develop new products

It requires sales figures for each product, customer lists & accounts and market research results

Purchasing Department

Responsible for buying raw materials and new stock

It requires current stock levels and supplier information

Research Department

Researches new products and new methods of production

It requires details on current products and market research analysis from the Marketing department

Information Overload

Where someone has access to so much information that they can't find the important information. E.g. if you search for Football on the Internet you will find over 20 million web pages

It causes the following problems:

- Difficult to find required information
- Difficult to decide what is accurate/reliable
- Difficult to decide what is current information and what is old
- It takes time to read/review all information
- It takes long time to find the data that you are looking for

It can be reduced by choosing very specific search criteria so that you only find a few links:

- | | |
|---------------------------------------|--------------------------|
| • Sport | - finds 42 600 000 links |
| • Football | - finds 20 200 000 links |
| • Football and United | - finds 1 710 000 links |
| • Football Manchester United | - finds 394 000 links |
| • Football Manchester United official | - finds 82 500 links |

Data Protection Act

Anyone processing personal data must comply with the eight principles of good practice. They are that data must be:

- fairly and lawfully processed;
- processed for limited purposes;
- adequate, relevant and not excessive;

- accurate;
- not kept longer than necessary;
- processed in accordance with the data subject's rights;
- secure;
- Not transferred to countries without adequate protection.

Personal data covers both facts and opinions about the individual. It also includes information regarding the intentions of the data controller towards the individual, although in some limited circumstances exemptions will apply.

Compensation

If a company holds data that is incorrect about someone, the person has the right to have the data changed and also has the right to compensation. E.g. If John didn't get a job because a company had him on file as a mass murderer and the company was wrong, John could ask for compensation for losing out on the job.

Exclusions

The Police, tax office and National security agencies are excluded from the act.

Standard ways of working

Spell Checkers

Spell checkers pick up some words that are not spelt wrongly e.g.

- Stroud (names are not in the spelling dictionary)
- Crossley (nor are place names)

And they don't pick up all spelling mistakes e.g.

- The tomato is read (read should be red)
- What are the wit stakes hear? (wit stakes should be mistakes)

Grammar Checkers

They pick out mistakes like these:

- The boy are all tall - boyS
- I can see there food - THEIR
- Let me know you're decision - YOUR decision

Keeping Data Safe

Keep data safe by:

- Organise your work in folders
- Regular back ups - save files every night on to magnetic tape, store the tape in a fire safe
- Save your work with a different name each day so you have lots of copies

- Set files to read only
- Switch on the auto save feature in word so the work is saved every few minutes

Security

Information in a computer can be lost from viruses, by accident or by someone logging on to someone else's account. To protect it you can do the following:

- Stop people from downloading from the Internet to avoid viruses
- Virus checkers
- Fire walls which stop hackers from breaking into your computer using the Internet
- Passwords
- Don't open email attachments - they might have viruses

Health and Safety

RSI (pain and numbness in the hands and fingers) - Caused by typing for long periods

Back pain - Caused by sitting at a desk for long periods

Eyestrain - Caused by staring at a computer screen for long periods

Physical Stress - caused by sitting uncomfortably

You can avoid them by doing the following:

- Taking regular breaks
- Use a screen filter to reduce screen glare
- Ergonomic keyboard
- Avoid having a light glare on your screen
- Have an adjustable chair to keep your back straight and stay comfortable

Copyright

It is illegal to copy someone's work without paying for it. E.g. Use Kazaa to download the latest Blockbuster film - you must buy it