AS ICT MidYear Assessment

Total : 50 marks

1. Define the term **data** and use a suitable example to illustrate the relationship between data, information and knowledge. [4]

Knowledge is derived from information by <u>applying rules</u> to it.	1
Data is 120/60, 135/65, 140/70	
Information these are blood pressure readings	1
Knowledge patients conditions worsening	1
Or similar examples	1
Data is L1 56.4, L2 57.5, L3 54.5, L4 57.9, L5 64.4. L6 55.1	
Information these times from a swimming race	
Knowledge is that the winner was in Lane 3	

2. Give an example of a problem that could arise if information is not: [2]
(i) complete,
(ii) up to date.
Use distinctly different examples in **each** case.

Two appropriate examples (one for each) such as:
    (complete) An address on a letter without a postcode will delay delivery.
    An incomplete order may result in non delivery of some items.
    (up to date) Letters sent to deceased people causing great heartache.
	1
	
	1

3. A teacher is preparing a new course and needs to find information on Brazil. One method of finding such information is to use reference books. Name **two** different electronic methods of finding this information and for **each** give **one** advantage of using the method over using a reference book. [4]

Any two of **2x2** **1 mark for each type given** **1 mark for each advantage** **NB Advantages must be different** **Internet/Intranet/Extranet/search engines** Keyword searches, Interactive resources, editable information, copy and paste pictures/diagrams into reports, wider choice/variety of information available, current information, easier/quicker to search for information. **Email experts/specialists** Book might be available, email could give faster response **Post questions on bulletin boards/Forums** Reach wider audience of experts		4

CD based software or Online encyclopaedias Easier to carry, keyword searches, copy and paste pictures/diagrams into reports, editable information, current information, easier/quicker to search for information. **Teletext/Interactive TV** if qualified	

4. (i)A design company, which also has the services of an architect, uses specialist CAD software. Describe an advantage of **four** of the following features of a CAD package to a designer when designing a new product.
Rotate, zoom, walkthrough, 2D/3D, stress/strain(sometimes called a wire drawing). [4]
(ii) With reference to appropriate examples, give **three** benefits that networking would give the building company. [3]

Features description of advantage	4
Rotation sees design from all angles on the outside Zoom allows the designer to produce work of more detail or add detailed design Wire drawing helps with perspective and working out stresses and strain areas. (shows outline structure) Requires less processing to display. Rotation sees design from all angles on the outside 2D to 3D Allows the bare plan to be solidified so that non experts can get a better feel for what the final product looks like. (not just see what it looks like)	

5. A large number of people are now involved in producing web pages.
(a) Explain the following term in relation to web authoring, giving a suitable example.[1]
(i) hyperlinks
 (b) Web pages are often used as an entry into email systems. Describe advantages and disadvantages of email in a workplace situation. [3]

5. (a)	A Hyperlink is a connection to another related page, when activated sends a request for another web page (Or object) to be downloaded Suitable example	2
5. (b)	Have to have at least one of each to get full marks. Advantages - Messages can be sent across the world for the price of a local phone call - Can send attachments in a variety of formats - Can use address book - Emails arrive quicker than ordinary post - Goes straight into the computer so easier to work on - Can be picked up as soon as someone arrives at work - No need to print out/saves paper	2

• Easier to edit and return • No need to look up an address as already in dictionary • Easier to send multiple copies at once • Can access anywhere in the world • Easier to check opening/delivery Disadvantage • Recipient must have suitable hardware • Security and privacy issues as using a public network • Attachments can allow viruses onto PCs • Have to have an ISP • Staffing issues • Health – Eye strain • Email blackholes • Work life balance • Amount of SPAM • Not being able to find addresses • Personal use/distraction • E-bullying	1

6. In response to the concerns of businesses and individuals about the use of computers for criminal purposes, the Government has introduced legislation such as the Computer Misuse Act, The Copyright Act and the Data Protection Act. With reference to suitable examples, suggest how the *three Acts* have tried to alleviate these concerns. [6]

Note - *Need to mention all three Acts for maximum marks – one mark per relevant point.* *Well argued answers with good examples need not have six separate points.* *If only one act covered then max four marks.* Crimes against the *Misuse Act* are backed up with fines and prison (differing scales). Hacking, blackmail using a computer, spreading viruses. Onus in *DPA* on companies to register, to keep data secure, up to date and to obtain data lawfully. *Copyright Act* tries to stop people copying software. (Could mention *Freedom of Information Act* or *Intellectual Property Rights*)	6

7. ICT is having a big impact on commerce in the modern world.
(a) Describe what is meant by EFTPOS and discuss the advantages it gives the customer and the business. [7]
(b) Online banking has allowed customers to have more flexible access to their bank accounts. Discuss the advantages *and* disadvantages this has brought the bank's customers. [4]
(c) Discuss **two** different crimes (other than mugging at the ATM) associated with the use of debit/credit cards, and give, in each case, an appropriate method of prevention of misuse of the cards. [4]
Quality of Written Communication. [2]

EFTPOS is the **transfer of funds electronically** between the **customer's bank account and the retailer's at a till point**.	2

Any 5 from Customer • Can buy 24 hours a day, 365 days a year • No need to handle cash since all transactions are made using cards • Can print off an on screen receipt • Delivery process can often be tracked online • Goods are often discounted • Allows BOGOF and promotional offers • Less time at checkout • Allows cashback at the POS • Instant refunding Business • Process is almost paperless • Transactions are automatic, saving staff costs • Connectivity between the stock database and sales also allows for automatic stock control (condone) • Now the money is there before customer takes the goods away • Tracking spending patterns • Customer targeting	5
At least 1 of each: Advantages • Customers don't have to leave home to pay bills, etc. • Savings on postal or travel costs (pollution) • Pay bills anytime (24/7) • Allows greater flexibility in handling money Disadvantages • Computer could be down • Hacking of credit card/ debit card details – people who might misuse the data • Have to pay telephone charges whilst online • Phishing • Introduction of viruses • No physical cash • Lack of local branch • Telephone costs when have problems	5

8. (c)	Any 2 crimes and associated prevention method	4

Card crimes	Prevention
Using stolen debit and credit cards	Photos on cards

		Lower the amount that can be spent using cards before seeking authorisation
		Details of stolen cards put on POS terminals
		PIN numbers
		Spending patterns
		Camera at ATM
	Credit card fraud on the Internet and their misuse	Use agreed words on some sites
		Use a secure service (Paypal)
		CVV number
	Card copying (skimming) phishing	Programmable smart cards to make data difficult to copy
		Use of holograms to make cards difficult to copy.
	Applying for a card using stolen identity	Shredding of personal information

8. Discuss two different methods of registration/roll call that are used in schools, looking at the benefits that they bring to a school and their drawbacks. [6]

To get full marks candidates have to discuss a method, a benefit and a drawback. Candidates could compare manual with electronic and make points which cover the different electronic methods OR they could look at the different electronic methods. Either approach should be rewarded. One mark for each relevant point. i.e. Method Manual i.e. writing marks in a registration group Benefit have a permanent record Drawbacks harder to process lots of work needed to get absence figures. OMR	6

Admin software on PC /Computerised registers

Wireless (Bromcom)

Fingerprint systems

Smart cards

Benefits

Improved attendance, improved tracking of attendance cuts down internal truancy, automatic SMS messages to parents, automatic creation of statistics, automatic archiving

Drawbacks

Fire – cannot use the system and might not know who is there

Cost -setup

Equipment breakdown/power cut

Card misuse i.e. someone else swiping your card

Needing consent for fingerprints