**You will need to know about the following for the January exam.
Remember – red pages are the textbook in school, green are the online textbook**

**Section 1**

* Input and Output devices that would be used in a doctors surgery p13, p16 – **p14 - p19**
	+ How could a keyboard and a mouse be used in a doctors’ surgery? A monitor is used to view information and a printer is used for a hard copy.
* How online diaries/calendars work and how a surgery could send this information to Doctors who are on-call so they know who to go to p64 – **p85 – p87**
	+ Online diaries allow the doctor and the surgery to ‘sync’ up appointments. Available to view from anywhere, can add notes, address, etc to appointments. Can set reminders/notifications/alarms to doctors before appointments are due, can stop double booking of appointment slots. Can colour code certain appointments. Can share between the doctors and the surgery so that both can update and edit. Surgery can track where on-call doctors should be.
* How could details be sent to an out-of hours doctor about new appointments (on-line calendar, text, email, telephone call) p56-60 – **p72 – p81**
	+ Telephone call/text/online calendar notification/email
	+ Information can be sent quickly. Some allow for a permanent record that can be referred back to, can attach files, can share with more than one person at a time.
	+ Think of the advantages and disadvantages of all of the above
* Difficulties in paper feedback forms from patients where they fill in all of their medical details and how these are transferred onto a computer (eg scanner). What could these forms be created in (Word Processor) p41 – **p42 – p48**
	+ Paper forms cost money to print and to buy the paper. They take time to produce and then type into the computer. They can be hard to read if handwriting is not clear. They may be incomplete, or may be wrong if patient does not answer truthfully.
* Databases – how data is stored, what is a primary (unique) key? How is data added (someone manually typing it in). What happens if it is typed in wrongly? p37-38 – **p52 – p55**
	+ On a database, the surgery could STORE information about the patients, they could have a unique patient ID that is individual to each person. The database can be searched on different fieds quickly to produce results. These results could be presented in a report. The surgery can store a lot of data in a small amount of space, compared to printing out and having filing cabinets. Data validation check that the correct format has been typed in (eg phone number in digits and not letters)
* What is anti-virus software – how does it work? p83 – **p113 – p114**
	+ Detects a virus before it enters the computer system. Checks against its database of viruses for infected programs. Needs regularly updating – auto-updates.Anti-virus also checks for Adware/Spyware/Malware (stops adverts appearing, stops people spying on you, stops malicious programs copying and deleting things).
* What are the security implications of allowing customers to access the same network in a doctor’s surgery where all the personal details are saved – how can this be fixed? p32 – **p33 – p34**
	+ Hacking into patients records and changing or deleting them. Using up important bandwidth that the surgery may need. Use a password and different levels of access. Install a firewall to prevent other people accessing. Could install a second separate network.

**Section 2**

* If a Doctor has a laptop with all the personal details of patients, what would happen if they lost the laptop? p78 – **p107 - p109**
	+ Data Protection Act – surgery could be fined up to £500,000 if data is lost and not secure. Surgery must keep data secure. Employee could be given a written warning or sacked if serious. Patients could lose trust in surgery and become victims of identity theft.
* How do you stop someone from accessing your laptop without authorisation? p80-82 – **p110 – p111**
	+ Password protection, install a firewall, use and regularly update anti virus software. Check for malware, adware, spyware. Switch off the wifi. Don’t let other people use your laptop!
* What does a USB key mean when accessing a network p36 – **p35 – p36**
	+ The key has a changing code that the surgery updates. This must also be plugged into the laptop and entered along with a username and password to confirm your identity and authorisation
* How does the Data Protection Act help ensure that data is kept secure (this could be the 9 mark question) p72 – **p96 - p98**
	+ The surgery must ensure that the data is kept secure, up-to date, only kept as long as is needed (if people leave – delete it), be accurate ,relevant and only used for the purposes they say.
* What are utility programs? Which ones would be used to ‘tidy up’ a laptop on a monthly basis (eg Disk defragmenter etc) (could be 6 marker question) p25 **p38**
	+ Utility tools ad extra functions to an operating system for the surgery such as managing printers, managing disks (and defragmenting them (cleaning up) to make computers run smoother and quicker), disk compression, creating backups, analysing performance etc.
* How could you go about changing from a paper based feedback form to an electronic one (ie on website) what are radio buttons, text fields, buttons etc used for? p41 - **p42 – p51**
	+ Online forms are on the computer – can be linked directly to a database. Validation checks are performed to ensure information is entered in the correct format. Will save the surgery time and money, but may mean more hardware such as touchscreens may be needed to bought. People will lose jobs as no longer needed to type things in. Information could still be missed. Text fields allow for text to be typed in freely to the form. Radio buttons and check-boxes allow you to select from a list (eg gender, previous conditions etc)
* Backup to external hard-drive – what else could be used (eg DVD’s which are cheap to buy and small to store or USB Memory sticks that are cheap to buy and portable and store a lot of memory or CD’s or Magnetic Tape etc) p49-55, p18 - **p20 – p22 / p67 – p71**
	+ DVD’s, Memory Sticks, Memory SD Cards, Magnetic Tape, Cloud – look at how much they cost, can they be reused, are they portable (easy to move around), are they robust (get damaged easily), are they secure – page 55 in particular is very good for this.
* Please remember to link all of our answers to the Doctor’s Surgery
* For the 9 mark questions, give three points, the advantages AND disadvantages AND link it to the doctor’s surgery for full marks
* All of the above notes are the minimum you will need. If you want to gain a higher grade, please attempt the extra mock I emailed you and read the theory online book which is available here on the Copley Computing Website:

(<http://copleycomputing.weebly.com/uploads/1/1/8/7/11872010/ocr_cambridge_nationals_ict_textbook_unit_1_and_2.pdf>)

* Good luck and please try your best – every mark you gain here is one less you need in a coursework!!