



ASSESSMENT and
QUALIFICATIONS
ALLIANCE

Mark scheme

June 2003

GCSE

Information and Communication Technology B

Full Course 3522 Foundation

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1a(i)	This point. 7	1 mark
(ii)	This point. 4	1 mark
b(i)	These points. C4 is a number D3 is a formula	2 marks
(ii)	This point. currency	1 mark
c(i)	Any reasonable but must work in a spreadsheet, for example: B4*C4, =B4*C4 Allow SUM(B4*C4) NOT B4×C4	1 mark
(ii)	These points. D2+D3+D4+D5 SUM(D2:D5)	2 marks
d(i)	Any reasonable that identifies cell B5.	1 mark
(ii)	Any reasonable that identifies cells D5 and D7. Allow follow through from d(i).	2 marks
e	These points in this order. pie ; line; bar (or column)	3 marks
f	Any reasonable, for example: pie – shows relative importance of sales of each meal column chart – easier to read off value of Takings NOT line	1 mark
Total		15 marks

2a(i)	This point. Employee Number	1 mark
(ii)	Any reasonable, for example: Telephone number, address, tax code, hours of work, attendance, date of birth, date hired NOT contact numbers, age, how long they have worked for the company.	2 marks
b(i)	This point. Circles 5000	1 mark
(ii)	This point. range check	1 mark
(iii)	This point. $0 < \text{Weekly wage} < 600$	1 mark
c(i)	This point. Jones and no others	1 mark
(ii)	This point. Casey and no others	1 mark
(iii)	These points. Hood, Habib, Clarke, and Casey, and no others	1 mark
(iv)	These points. Hood and Habib, and no others	1 mark
d(i)	Any reasonable, for example: Each job has a unique code. The code reminds you of the Job Title. There are enough characters in the code so that more jobs with the same initial letter can be coded. NOT easier to read	2 marks
(ii)	These points. Instructions tell respondent what do to, 1m Design includes horizontal or vertical line that looks like part of an OMR form, for example, using pairs of brackets or similar, 1m Associates each job with a pair of brackets, for example: [EL] [FI] [PA] [SU], 1m	2 marks
(iii)	Any reasonable, for example: Input using OMR is more reliable. Input is faster using OMR. Input is less effort using OMR. Input is more accurate using OMR.	1 mark
Total		15 marks

3a(i)	These points. Allow connection via the monitor. Allow the mouse to be connected to the keyboard instead of the Processor Box. Joins four other parts to Processor Box with no other connections, 2 m. Joins two other parts to Processor Box with no more than four connections shown, 1 m. Joins mouse, keyboard and printer to monitor, 1m	2 marks
(ii)	This point. Processor Box	1 mark
(iii)	These points. Keyboard, Mouse	2 marks
(iv)	These points. touch screen, digital camera, scanner	3 marks
b	This point. a network card	1 mark
c	These points. index.htm – web file castle.jpg – graphics file letter.txt – text file	3 marks
d	These points. Web browser, email, operating system	3 marks
Total		15 marks
4a	These points. Record the temperature more frequently. Record the temperature during the day and at night. Record the temperature using weather stations in a variety of different locations.	3 marks
b	These points. wind direction; light; rainfall	3 marks
c(i)	Any reasonable advantage, for example. Up-to-date information can be collected more quickly. Information could be collected more frequently. A weather station could be located where a person could not reasonably go very often.	2 marks
(ii)	Any reasonable disadvantage, for example. The information may not be collected if there is a power cut. The information may not be collected if the computer breaks down. Set up costs are more expensive.	2 marks
d	These points. The CCTV camera shows what the weather is like The CCTV camera shows if drivers are affected by icy roads.	2 marks
e	Any reasonable, for example. CCTV cameras intrude into people's privacy. CCTV could be used to monitor people's movements. CCTV cameras are expensive to install. CCTV cameras do not prevent crime (or speeding, etc.). People don't know who is watching them. People might feel they have to modify their behaviour if CCTV cameras are recording what they do.	3 marks
Total		15 marks

5a	These points. D systems design A documentation C testing	3 marks
b(i)	These points. A list of current members. A list of all the videos that are in stock. A list of the videos each member has borrowed.	3 marks
(ii)	These points. Names the process as mail merge, 1m Gives additional information, max. 2. For example: <ul style="list-style-type: none"> Needs a database of ex-members names and addresses. (database only is BoD) Letters can be personalised, e.g. set up a standard letter with fields in it. Print labels and stick them on the letters, or print on the envelope, or equivalents, 1m	3 marks
c(i)	These points. The font is too small. The user documentation is not in simple English. The user documentation does not relate to how the ICT system is used in VideoNow's business.	3 marks
(ii)	Any reasonable. For example: On a web site. (BoD Internet) As a printed manual. Help in the software. Accept email help as a part of documentation, but not telephone help lines.	3 marks
Total		15 marks
6a	This point. Turn the heater off.	1 mark
b(i)	These points. IF TEMPERATURE IS MORE THAN LEVEL THEN TURN HEATER OFF more than, 1m heater off, 1m full and complete answer, 1m	3 marks
(ii)	These points. Line 1 LEVEL = 20	2 marks
c	This point. saves	1 mark
d(i)	Any reasonable. The engineer should know how the system works. The engineer should be able to consult other experts if there are problems. The owner knows who is responsible if problems arise.	1 mark
(ii)	Any reasonable. The engineer may not know Gregory House well enough to install the system in the most effective way. Different engineers may call at different times, and their work may not be consistent. ConLev could overcharge.	1 mark

6e	A. the software and hardware are easy to maintain C. the software and hardware are reliable D. the software and hardware are protect from damage by hackers and vandals	3 marks
f(i)	Any reasonable advantage to the owner, e.g. it is easier to control the heating because this is done centrally. The central heating system can be adjusted for optimum fuel economy, e.g. temperature can be automatically adjusted depending on a person's presence or otherwise.	2 marks
(ii)	Any reasonable disadvantage to the owner, for example: The heating system has more components and is more complex so more can go wrong. Maintenance engineers must have high levels of technical skill, may be more expensive.	1 mark
Total		15 marks
7a	A baby asleep in an upstairs bedroom can be watched by its parents downstairs. People all over the world can watch the space shuttle taking off as it happens. Pupils in a geography lesson can watch a volcano erupting at the other side of the world.	3 marks
b(i)	Any reasonable advantage, for example: WebCams can be very small and discreet. A WebCam on top of a computer could record who is using it, deters unauthorised users. A WebCam can record what is put into and taken out of a till. Recordings can be used to identify criminals. WebCams can be used without the knowledge of those being videoed. Many people can watch from different computers all over the world. People can watch things they might not see otherwise. WebCams are cheap to set up. WebCams are easy to set up/easy to use. No need to travel to talk to see someone. Allow general and specific answers	2 marks
(ii)	Any reasonable disadvantage, for example: The image from a WebCam can be poor quality. A WebCam does not physically prevent crime. A WebCam can interfere with personal privacy. Allow general and specific answers	2 marks
c(i)	Any reasonable, for example: How down loaded: A virus can be downloaded attached to an email. Prevention: Use a virus checker to detect and automatically delete emails with viruses.	2 marks
(ii)	Any reasonable. Must not be a virus, for example: Security threat: Others can intercept and read your email. Prevention: Encryption.	2 marks
d	Any reasonable. Any solution must leave the hardware useable. For example: Secure computers to the bench. Locate computer rooms off the ground floor. Restrict access to computer rooms using swipe cards and locks. Use security film or wire grills on the windows. Supervise computer rooms when they are in use. Have a WebCam to record who is using the hardware. Mark equipment with identification, e.g. UV Keep computers out of sight. NOT passwords to access the computer.	4 marks
Total		15 marks

8a(i)	Any reasonable advantage. For example: The bank is open 24/7. Customers can get a statement at any time. Customers can set up bill payments in advance. No need to leave home to use the bank. Easy to access.	2 marks
(ii)	Any reasonable disadvantage. For example: If the bank's Internet site is not available access to a customer's account is very limited. The range of services offered can be very limited compared with a conventional bank. You can't talk to someone when you need advice. You must have a computer and/or Internet access.	2 marks
b(i)	Any reasonable advantage. For example: Goods are usually cheaper than in High Street shops. A wider range of goods is available. Goods can be delivered to any address, so it is easier to send people presents. You can shop without leaving home.	3 marks
(ii)	Any reasonable disadvantage. For example: You may not know exactly what you are buying until it is delivered. To return goods you have to post them back. If the goods you ordered are not available, other goods may be substituted and you may not want these. Goods may take a long time to be delivered.	2 marks
c(i)	Any reasonable advantage. For example: You may receive advertising for goods you are interested in. Companies may develop new products if they know in advance that there is a market for them. Companies may develop better products if they know what customers want.	2 marks
(ii)	Any reasonable disadvantage. For example: You may receive a lot of junk mail/email. You may receive a lot of information about goods that you are not interested in. Telesales persons may ring you up and try to sell you goods.	2 marks
d	Any reasonable. Personal information 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 other countries without adequate protection	2 marks
Total		15 marks