**Cambridge National**

**ICT**

Unit **R001/01**: Understanding Computer Systems

Cambridge National Level 1/2 Certificate

**Mock Exam Mark Scheme for May 2015**

Based on the OCR pre-release material for Summer 2015 exam and content from previous OCR Mark schemes.

| Question | Answer | Marks | Guidance |
| --- | --- | --- | --- |
| 1 | a |  |

|  |  |  |
| --- | --- | --- |
| Statement | Laptop | Desktop |
| Easily portable |  |  |
| Light weight/ |  |  |
| Needs to be plugged into an electricity supply |  |  |
| Separate keyboard |  |  |

 | 4 |  |
|  | b |  | ONE mark for a suitable answer eg:* (Wireless) Network card (1)
* Router (1)
* Cable (1)
* Switch (1)
* Hub (1)
* Wi-fi dongle (1)
 | 1 | Not Wi-fi on its own. |
|  | c | i | Up to TWO marks eg: * The user name recognises the user (1) as it can be
* checked against recognised list (1)
* The user is identified (1) and
* resources/privileges/storage areas are allocated (1)
* Use of the network is linked to the user name (1) so
* misuse/level of use can be tracked (1)
 | 2 | User names are not part of the security system. |
|  |  | ii | ONE mark for a suitable answer e.g.:* For security purposes (or equivalent) (1)
* To protect data/the network/access to resources (1)
 | 1 |  |
|  |  | iii | ONE mark for a suitable answer e.g.:* To increase security (1)
* In case someone finds out the password (1)
* To reduce the chance of it being known (1)
* To reduce the risk of unauthorised access (or
* example thereof) (1)
* Because it is good practice (1)
 | 1 |  |
| 2 | a |  | Up to TWO marks e.g.* Each file has to be added after every update(1), but a network share is automatically updated when the file is saved (1)
* Everyone will update their own version of a file from email (1) but on a network share everyone changes the same file (1)
* Attachments from email could be out of date (1) but a network share is always up to date (1)
 | 2 |  |
|  | b |  | ONE mark for a suitable answer e.g.:* Cloud storage
* Use of VPN
 | 1 | Not email. |
|  | c |  | Up to TWO marks e.g.:* In case changes are made that they want to undo (1) so they can go to an earlier version before those changes (1)
* In case a file gets corrupted (1) so they can use an older version rather than start from nothing (1)
* So they can see their progress (1)and track the changes over time (1)
* If they delete anything from the design(1) they may want to keep it to use in a different page(1)
 | 2 |  |
|  | d |  | Up to TWO marks e.g.:* Password protection in the software (1)
* User rights of the folder & files (1)
* Encryption software (1)
* Store on a read-only medium e.g. CD (1)
 | 2 |  |
| 3 | a |  | Up to TWO marks e.g.* Instant messages (IM) can be sent even when the other person isn’t ready to answer (asynchronous) (1)
* IM software is generally free to use (1)
* IM software can be used on a range of different hardware devices including phone & desktop computer (1)
* Images & files can be transferred with IM software (1)
* IM software is text-based (1)
* Emoticons can be used in IM (1)
 | 2 |  |
|  | b |  | Up to ONE mark e.g.:* Phone calls can show tone of voice (1)
* IM could be misunderstood (1)
* IM requires an internet connection (1)
* You may not get an immediate reply with IM (1)
 | 1 |  |
| 4 | a |  | Up to TWO marks e.g.:* An operating system controls how software shares hardware (1) and allows multitasking (1)
* OS allows apps to be installed (1) and to access hardware features (1)
* OS controls access to hardware (1) and software sharing data (1)
 | 2 |  |
|  | b |  | Up to TWO marks. E.g.:* Search on the app store (1) click to install/download app (1)
* Follow link to app store (1) install/download app (1)
 | 2 |  |
|  | c |  | Up to TWO marks e.g.* Banner adverts (1)
* Video clips (1)
* Still images (1)
* Animated images (1)
* Social sharing (1)
* User generated content (1)
 | 2 |  |
| 5 | a |  | Up to SIX marks for a discussion. E.g.Benefits:* More people will view clips (1)
* May generate ‘buzz’ (1)
* Some may share clips (1) e.g. on social media sites (1)
* May drive more sales (1)
* A more ‘modern’ way of advertising (1)

Drawbacks:* There may be copyright issues (1) e.g. reuse/re-uploading of clips (1)
* People may only want the free content and not pay (1)
* May not lead to increased sales (1)
* Negative feedback in public (1) e.g. comments on video (1)
* Lots of competition (1)
 | 6 | Max of 4 marks if only benefits or only drawbacks are discussed. For full credit there must be a discussion with an acknowledgement that there are both benefits & drawbacks |
|  | b |  | Up to ONE mark for a suggestion e.g.:* (banner) adverts in games/websites/social media sites (1)
* Paid for search results (1)
* Paid for social media posts (1)
* Sponsor video/social media celebrities/events (1)
 | 1 |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 6 |  |  | Negative impacts could include:* Health effects e.g.:
	+ Back pain
	+ Neck pain
	+ Arm/wrist/hand pain
	+ Eye strain
	+ Headaches
	+ Stress

Answers may refer to:* Technologies (e.g. specific input devices) to overcome health issues
* Workspace layout
* Policies (e.g. break every 2 hours) to combat issues
 | 5 – 63 – 4 1 – 20 | **LEVEL Three (5 – 6 marks)**The candidate will have a clear understanding of negative effects and will provide a detailed, well developed explanation which answers the question by clearly linking the use of ICT at Animated World Books with increases in the effects.The candidate will explain a range of impacts of ICT and ways to reduce them.Subject specific terminology will be used correctly and appropriately.**LEVEL Two (3 – 4 marks)**Candidates will have some understandingof negative effects and will **explain** one or more impacts in some detail.OrCandidates will have a good understanding of negative effects and will **describe** one or more impact in good detail.**At the bottom end of the mark band, the answer may not be presented within the context of Animated World Books.**Specialist terms will be used appropriately and, for the most part, correctly.**LEVEL One (1 – 2 marks)**The answer will be a point(s) or a very weak, undeveloped description. Answer may not refer to examples from the scenario.There may be no use of specialist terms.**Zero marks**Answers with no valid content. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 7 | a |  | Up to ONE mark e.g.:* Mouse
* Keyboard
* Microphone

Touch screen  | 1 | Accept any answer that could be used toinput text. |
|  | b |  | TWO marks for a matched answer e.g.:* So that system knows who each person is (1) and they won’t be confused with others/so delivery goes to the correct person (1)

To enable the system to identify each user (1) and to enable it to match the username to the account’s password (1). | 2 |  |
|  | c |  | TWO from e.g.:Require John to select from a drop down list (or equivalent) (1) and set the form to only accept answers from that list/not allow any other answers (1). | 2 | One mark for each of two valid points.Equivalent answers to a drop-down would include:* List of options
* Scroll menu

The question asks how the form can ensure that a valid country is entered. Do not reward answers which rely on John to ensure that he makes the correct entry (eg “John must type in a valid country name”). |
| 8 | a |  | Up to TWO marks e.g.:* Data can be deleted/corrupted/damaged/lost (1) and so a copy is kept to replace it (1)
* So that the school can carry on operating (1) if the data is deleted/corrupted/damaged (1)
* If the data is deleted (1) the school still has the information it needs (1)
* To protect against accidental loss/destruction (1) as required by the DPA (1)
 | 2 |  |
|  | b |  | Up to TWO marks e.g.:* Specialist software/hardware may be needed to organise back-up (1) and this may be expensive/require special training(1)
* As it is done automatically, there could be a problem (candidate must specifically identify) (1) and no one would know until it was checked (1)
* Staff may be required to react to problems at inconvenient times (1) and so may need better/extra pay (1)
* Automated backups may not be scheduled to suit all users (1) so work could be lost before the backup occurs (1)
 | 2 | Do not accept back-up the wrong files.Back-up at the incorrect time is too vague.‘Might go wrong’/’might not always work’, is too vague. |
| 9 | a |  | Up to ONE mark e.g.:* Hacking (1)
* Data getting corrupted (1)
 | 2 |  |
|  | b |  | Up to THREE marks:* A firewall checks (each packet of) data in/out of a computer (1)
* Any suspicious packets are not allowed through (1)
* Data that is ‘safe’ is allowed to pass (1)

The firewall should identify and stop viruses/hacking etc. (1) | 3 |  |
| 10 | a |  | ONE mark for the correct answer:Copyright, Designs and Patents Act | 1 |  |
|  | b |  | Up to TWO marks, one for each correct action e.g.* Identify the copyright holder (1)
* Obtain permission from the copyright holder (1)
* Pay any necessary fees (1)
* Acknowledge copyright (1)
 | 2 |  |
|  | c |  | Up to THREE marks e.g:* As Richard took the photograph he is the copyright holder (1) he would not need to contact anyone else about copyright (1)
* As the photograph is in public Richard would not need permission from each person in the photograph (1)
* The restaurant may not allow Richard to use their logo/trademarks etc. (1) he would still need permission to use the photograph (1)
 | 3 |  |
|  | d |  | Up to TWO marks e.g.:* Richard should use the social network to ‘report’ the post(s) (1) and allow the website to resolve the issue (1)
* Richard could contact the police (1) and report the messages (1)
 | 2 |  |