**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 |
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| 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of a file from email (1) but on a network share everyone changes the same file (1) * Attachments from email could be out of date (1) but a network share is always up to date (1) | 2 |  |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 |  |

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| 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 – 6  3 – 4  1 – 2  0 | **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 understanding  of negative effects and will **explain** one or more impacts in some detail.  Or  Candidates 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. |

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| 7 | a |  | Up to ONE mark e.g.:   * Mouse * Keyboard * Microphone   Touch screen | 1 | Accept any answer that could be used to  input 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 |  |