**Cambridge National**

**ICT**

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

Cambridge National Level 1/2 Certificate

**Mock Exam Mark Scheme for April 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 |  | |  |  |  | | --- | --- | --- | | Device | Used for input | Used for output | | Screen |  |  | | Printer |  |  | | Touchpad |  |  | | 3 | One mark for each correct answer. |
|  | b |  | One mark for a suitable output device e.g.  Projector  Large screen (TV) | 1 |  |
|  | c |  | Two marks available for an answer with explanation:  eg   * The graphics tablet uses a stylus/pen shaped tool (or equivalent) (1) and so is more like a real drawing experience (1) * Because a graphics tablet is more accurate/precise (than a mouse) (1) and so offers greater control (1) * Because a graphics tablet includes specialist software (1) with extra features (1) * Because graphics tablets are more responsive/ pressure sensitive (1), therefore increased pressure can be used to increase line thickness (or other example of flexibility) (1) * A more ergonomic tool (1) therefore less chance of injury (1) * Device is specific for the purpose (1) so will have more suitable features (or examples) than a mouse (1) | 2 | Converse answers which deal with why a mouse would not be used are acceptable.  Easier to **use** (than a mouse) is too vague.  Easier to **draw** with is just enough for one mark.  eg:  Uses a pen which is easier to **use** is worth one mark.  Uses a pen which is easier to **draw** with is worth two marks.  The above refers to bullet point 2.  Some graphics tablets use touch screen. |
| 2 | a |  | Candidate may describe the general process or give a more specific  answer  **General answer**  eg   * Email (1) as an attachment/as a body of text/which will then be opened/downloaded by Catherine/saved to Catherine’s computer (1) * Upload the article to a file-sharing service eg cloud (accept * named example) (1) which is synchronised with a folder on Catherine’s computer/from where Catherine gets it (1) * Copy the article to a location (eg intranet/file hosting service) (1) that only he and Catherine have access to (1) and Catherine could download the files herself (1). * **Specific process**   eg   * + Open email software (1) click on paperclip (or equivalent)/attach file /write the email (1) click send (1). | 2 | One mark for a valid method plus one mark for a  correct description.  The underlined section is required for two marks  if the specific process is described. |
|  | b |  | 1 mark for each correct way, max 2  Password protect file (to open or to edit) (1)  Make read-only (1)  Lock specific cells to prevent editing (1) | 2 |  |
|  | c |  | TWO from eg   * Tracked changes (1) which shows any changes that Clare has * made (1) * Add comments (1) by clicking on the comments tool/which are * callouts (which include comments)/which go in coloured boxes * on the side of the page (1) * Emphasised text (or example) (1) by clicking the coloured * pencil/bold (or equivalent) (1) * Ink tools/layer (or equivalent) (1) to annotate text (1). | 2 | Answer must be a method by which feedback  about **content** or **focus** of the article may be  given.  Do not accept ’write on it’. Mark as too vague as  answer is not clearly using a feature of WP.  Do not allow to provide feedback. |
|  | d |  | |  |  | | --- | --- | | Requirement | Device | | Voice input | Microphone | | Moving image input | webcam/video camera/camera | | Voice output | speakers/headphones | | Moving image output | monitor/screen/VDU/TV | | Connectivity | modem/router/cable/network card | | 5 | Award one mark for each valid device.  Accept valid variants on these terms (eg mobile broadband dongle for connectivity).  Wireless is not accepted on its own, but accept when with modem etc.  Answer requires a device. Internet/wi-fi, for example, are not answers for ‘connectivity’ |
| 3 | a |  | Two marks for one answer and explanation: e.g.:   * The operating system allows the smartphone to boot up (1) and run apps (1) * The operating system allocates hardware resources to apps (1) e.g. RAM (or other example) (1) * The operating system provides a user interface (1) so that the user can access the apps installed (1) | 2 |  |
|  | b |  | Two marks e.g.:   * The user can browse an app store (1) and click ‘install’ for their selected app (1) * The user can download an app (1) and then open the file to install it (1) | 2 | ‘click install’ is too vague for one mark.  ‘Choose on the app store’ is valid for **one** mark |
|  | c |  | Two marks max, one for each multimedia feature of mobile apps. E;g;   * Video * Audio * Still or moving images * Interactivity * Buttons * Connection to social media * Games * Links to websites * E-reader functionality | 2 |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 4 |  |  | Negative impacts could include:   * Health effects e.g.:   + Back pain   + Neck pain   + Arm/wrist/hand pain   + Eye strain   + Headaches   + Stress * Over reliance effects e.g.:   + Unable to work effectively without an internet connection   + Lack of social contact with colleagues   + Unable to work away from office without specific equipment   + Work lost if not backed up   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 * Alternative working methods to overcome technical 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. |

| Question | | | Answer | Marks | Guidance |
| --- | --- | --- | --- | --- | --- |
| 5 | a |  | |  |  | | --- | --- | | **User form feature** | **Describe one purpose of this feature** | | Radio button | The user can click this to select (1) one option of a group (1) | | Text field | The user can type directly into this (1) to add free text (or an example thereof) (1) | | 4 |  |
|  | b |  | TWO marks available:  By restricting the type of data (1) that is entered, the data is more likely to be the data you need (for the calculation/ for the analysis/ to identify the request) (1) | 2 | One mark for what validation does, or an example and the second mark for stating why this is appropriate. |
| 6 | a |  | 1 mark for the correct answer:  Web browser | 1 |  |
|  | b |  | One mark for each correct answer, max 2.  File formats suitable for use, e.g:   * .jpg * .png * .gif | 2 | Not any video format e.g. avi, mp4 |
|  | c |  | 1 mark for the correct answer:  Monitor | 1 |  |
|  | d |  | 1 mark for the correct answer:  Printer | 1 |  |
|  | e |  | Max 2 marks for reason and explanation:  e.g.   * to enable acknowledgement of bookings (1), so that members know their requests have been actioned and/or confirmed (1) * to enable the leisure centre to send reminders (1), so that they do not have sports classes running half empty (1) * to enable the leisure centre to inform members of any problems (1), providing good customer services (1). | 2 | Accept examples as part of explanation |
|  | f |  | 1 mark for the correct answer:  Data Protection Act | 1 |  |
|  | g |  | Max 3 marks:  e.g.  Data is converted into a code using an encryption key (1) before being transmitted (1) it is then encrypted into the original data (1) using a decryption key (1) | 3 |  |
| 7 | a |  | TWO marks  eg   * Stylus (or equivalent) (1) * Voice (1) * Buttons (1) * Keyboard/Keypad/Type (1) * (Download) from the internet (1) * (Transfer) from a computer (1) * Touch/Swipe (1) *  Camera (1) | 2 | Devices or actions are equally acceptable. |
|  | b |  | One mark for:   * wifi * mobile / 3g connection | 1 |  |
|  | c |  | One mark for a way: e.g.:   * A usb cable * Bluetooth * Wifi sync | 1 | Do not allow cloud storage, or any other internet based synchronisation |
|  | d |  | Two marks for an answer and explanation: e.g.:   * Richard can select which group (1) to share it with so that only colleagues can see it (1) * He might use different accounts (1) so that only work colleagues can see this account (1) * Richard can change the permissions (1) so that only colleagues can see the post (1) | 2 |  |
| 8 | a |  | One mark for correct answer:   1. Photo editing software/Graphics software (1) | 1 |  |
|  | b |  | 1 mark for each correct factor, max 2:  e.g.  some file types compress the image (1)  reducing the file size (1)  without reducing the quality (1) | 2 | Must be suitable for editing images. |
| 9 | a |  | Copyright (Designs and Patents) (Act) | 1 |  |
|  | b |  | THREE from:  Eg   * Check whether copyright applies to the image (1) * Identify the owner (of the copyright) (1) * Seek permission (from the owner of the copyright) (1) * Make any payment/comply with any requests that the owner of the copyright asks in order to use the image (1) * Acknowledge ownership/not claim authorship as own (1) | 3 | Do not accept ‘give source’ |