

## **Cambridge National**

### **ICT**

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

Cambridge National Level 1/2 Certificate

## **Mark Scheme for June 2014**

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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These are the annotations, (including abbreviations), including those used in scoris, which are used when marking

Annotation	Meaning of annotation
<b>BP</b>	Blank Page – this annotation must be used on all blank pages within an answer booklet (structured or unstructured) and on each page of an additional object where there is no candidate response.
<b>SEEN</b>	SEEN – this must be present on all pages, if there are no other marks on the paper. SEEN must be present on all banded response questions if zero marks awarded.
<b>L1, L2, L3</b>	L1, L2, L3 should be used on all banded response questions. There should be no other marks on banded response questions where marks have been awarded..
✓	Use to indicate a correct point/expansion for which a mark is awarded. DO NOT use on banded response questions.
<b>X</b>	Use to indicate the point/expansion/answer is not worthy of credit.
<b>TV</b>	Use when the answer is too vague to be awarded a mark.
<b>BOD</b>	Use when giving benefit of the doubt, eg if the language is poor but the answer is essentially correct.
<b>NBOD</b>	Use when benefit of doubt not given.
<b>Highlight tool</b>	Not compulsory but can be used to highlight reasons for a decision to a 3 <sup>rd</sup> party.

## SECTION A

This section relates to Scenario 1 of the pre-release.

Question		Answer/Indicative content	Mark	Guidance
1	a	<p>TWO marks</p> <p>eg</p> <ul style="list-style-type: none"> <li>• Stylus (or equivalent) (1)</li> <li>• Voice (1)</li> <li>• Buttons (1)</li> <li>• Keyboard/Keypad/Type (1)</li> <li>• (Download) from the internet (1)</li> <li>• (Transfer) from a computer (1)</li> <li>• Touch/Swipe (1)</li> <li>• Camera (1)</li> </ul>	2	Devices or actions are equally acceptable.
1	b	<p>TWO marks</p> <p>eg</p> <ul style="list-style-type: none"> <li>• Display/screen (1)</li> <li>• Speaker (1)</li> <li>• Vibration mechanism or equivalent (1)</li> <li>• Light/Torch (1)</li> </ul>	2	Do not accept monitor/VDU. Must be integral to smartphone not something plugged into it, such as headphones.

Question		Answer/Indicative content	Mark	Guidance
1	c	<p>FOUR marks for TWO full descriptions of work related uses:</p> <p>eg</p> <ul style="list-style-type: none"> <li>• Navigation software (1) can be used to find way to addresses (1)</li> <li>• Access internet (1) to find details about customers (candidate may give examples)/other work related use of internet (1)</li> <li>• Word processing software/notes software (1) can be used to take notes (1) during meetings (1) (Max two marks)</li> <li>• Record notes (with the microphone) (1) for future use/and the file passed to a secretary for typing up (1)</li> <li>• Video call (or named equivalent) (1) to check with colleagues (1)</li> <li>• Calendar (1) to check availability (1)</li> <li>• Email (1) to send/receive further information about the job(1)</li> </ul>	4	<p>Answer must refer to a <b>work related use of smartphones</b> and fit the scenario.</p> <p>eg</p> <p>Do not accept “download an app,” because this is excluded in the scenario.</p> <p>If candidate provides an answer that is correct in context and justifies it, two marks can be awarded.</p>
2	a	<p>TWO marks</p> <p>eg</p> <ul style="list-style-type: none"> <li>• Method/type of connection, eg wifi, wired, 2G/3G/4G (1)</li> <li>• Bandwidth (1)</li> <li>• Number of devices connected at the same time (1)</li> <li>• Obstacles in the way (1)</li> <li>• Range/distance from an aerial(1)</li> <li>• Location (1)</li> <li>• Signal strength (1)</li> <li>• Size of file (1)</li> </ul>	2	<p>Only accept answers that are based on the whole system being operational and switched on.</p>

Question		Answer/Indicative content	Mark	Guidance
2	b	<p>Up to 4 marks available for TWO full explanations.</p> <p>Answer may refer to the ability to transfer information or the advantage of not having a physical connection:</p> <p>eg</p> <p><b>Transfer information:</b></p> <ul style="list-style-type: none"> <li>• Update can be sent whilst the technician is out of the office (1) and so does not have to wait for the technician to be in the office (1)</li> <li>• Update can be sent from the Office Controller's desk(1) and so she does not have to find the technician (1)</li> <li>• It can be sent without the technician having to answer/be involved (1) so they are not distracted (1)</li> <li>• Improved customer service (1) as technician/Cable Ties Ltd is better able to respond (1)</li> <li>• Each technician does not have to be contacted (1) so time is saved (1)</li> <li>• Less chance of error (1) as technician may have bad handwriting/mishear the information (1)</li> <li>• Lower cost (1) due to no printing/travel (1)</li> </ul> <p><b>Physical connection</b></p> <ul style="list-style-type: none"> <li>• A wireless connection does not require wiring (1) and so can be less expensive (1)</li> </ul>	4	<p>Must be a benefit to Cable Ties Ltd of distributing the information this way.</p> <p>Do not accept terms such as quicker/easier/more efficient/cheaper on their own for one mark. Second mark should then be the expansion.</p>



Question			Answer/Indicative content	Mark	Content	Guidance
						Levels of response
				1 – 3		<p>Specialist terms will be used appropriately and, for the most part, correctly.</p> <p><b>LEVEL One (1 – 3 marks)</b></p> <p>The answer will be a point(s) or a very weak, undeveloped description. Answer may not refer to examples from the scenario.</p> <p>There may be no use of specialist terms.</p>
				0		<p><b>Zero marks</b></p> <p>Answers with no valid content.</p>



Question			Answer/Indicative content	Mark	Guidance
4			<p>Up to FOUR marks for TWO full explanations:</p> <p>eg</p> <ul style="list-style-type: none"> <li>• Security (1) this is the worry that the App may give access to information that is on the phone/may allow customers to be identified (1)</li> <li>• A virus could be downloaded (1) which could infect the smart phone/other impact (1)</li> <li>• Games might be downloaded (1) which would stop the technician working (1)</li> <li>• Apps may use memory (1) which will slow down the performance of the smart phone (1)</li> <li>• Quality of work may decline (1) so the customer is dissatisfied (1)</li> <li>• Some apps cost money (1) and so Cable Ties will be charged (1)</li> </ul>	4	<p>One mark must be awarded for security or vague answer about security.</p> <p>One mark for what might happen and one mark for reason or consequence.</p>
5	a	(i)	<p>THREE marks for any THREE items of personal data that fit the scenario</p> <p>eg</p> <ul style="list-style-type: none"> <li>• Customer name (1)</li> <li>• Telephone number (1)</li> <li>• Address (1)</li> <li>• Date of birth (1)</li> <li>• Gender (1)</li> <li>• Marital status (1)</li> <li>• Model of television owned/bought (1)</li> <li>• No of TVs bought in the last year (1)</li> </ul>	3	<p>Do not accept categories of data eg: 'Contact details' is too vague. 'Financial details' is too vague.</p> <p>However, 'emails details' is just acceptable.</p> <p>Do not accept:</p> <ul style="list-style-type: none"> <li>• Salary</li> <li>• Medical details</li> </ul>

Question			Answer/Indicative content	Mark	Guidance
5	a	(ii)	<p>They could take disciplinary action (or example thereof)</p> <p>eg</p> <ul style="list-style-type: none"> <li>• give a warning (1)</li> <li>• sack the technician (1)</li> <li>• take action that is on the AUP (1)</li> </ul> <p>Other actions may involve external groups</p> <p>eg (They could) report the technician to the Police (1)</p>	1	Must be actionable by a business, eg fines cannot be applied by the business.
5	b		<p>Up to TWO marks available for a full explanation:</p> <p>eg</p> <ul style="list-style-type: none"> <li>• Encryption protects data from access (1) by a third party/a hacker (1)</li> <li>• Data <u>needs</u> to be protected from unwanted access (1) because the DPA states this is required (1)</li> <li>• So that people cannot see the data (1) unless they have the (decryption) key (1)</li> <li>• If the data is stolen (1) it cannot be seen or accessed (1)</li> </ul>	2	<p>Answer must address why encryption occurs, rather than what encryption is.</p> <p>Do not accept '<u>no-one</u> can see it' for a mark.</p>

Section A total: 32



Question		Answer/Indicative Content	Marks	Guidance	
				Content	Levels of response
6	b	<p>TWO marks for a full description</p> <p>Award any suitable method that could be used within the context:</p> <p>eg</p> <ul style="list-style-type: none"> <li>• Start and end times could be entered onto diary software (1) and shown as blocks (1)</li> <li>• Start and end times could be stored on a database (1) and the difference calculated in a report/the times shown on a report (1)</li> <li>• GPS tracking of smart phone/van (1) with time and location calculated (1)</li> <li>• Observation (1) and note taking (1)</li> <li>• Create a table (1) and enter data/in a word processor(1)</li> </ul>	2		



Question			Answer/Indicative Content	Marks	Content	Guidance
						Levels of response
				1 – 3		<p><b>LEVEL One (1 – 3 marks)</b></p> <p>The answer will be a point(s) or a weak, undeveloped description. Answer may not refer to examples from the scenario.</p> <p>There will be no use of specialist terms.</p>
				0		<p><b>Zero marks</b></p> <p>Answers with no valid content.</p>

Question		Answer/Indicative content	Mark	Guidance
7	b	<p>TWO marks available for a full explanation:</p> <p>eg</p> <ul style="list-style-type: none"> <li>To link the feedback (1) and the job/technician (1)</li> <li>The number is unique (1) so that the feedback form can be linked (1) to the actual job (1) max 2</li> <li>So that the office controller knows which job/technician (1) the feedback is for (1)</li> </ul>	2	This question is about why a number is used on a form, rather why a number is used at all.
7	c	<p>ONE from</p> <p>eg</p> <ul style="list-style-type: none"> <li>Keyboard (1)</li> <li>Mouse/touchpad/tracker ball (1)</li> <li>Microphone (1)</li> <li>Sip and puff device (1)</li> <li>Head pointer (1)</li> <li>Graphics tablet (1)</li> <li>Touchscreen (1)</li> </ul>	1	
8		<p>Up to FOUR marks for TWO paired answers:</p> <p>eg</p> <ul style="list-style-type: none"> <li>Feedback has been gathered to try to help the business (1) and the customer does not expect to have to justify their comment/face aggression (1)</li> <li>The customer does not expect it (1) because there was no indication that their details would be passed on (1)</li> <li>Personal contact details are private (1) and should only be used for the purpose for which they were collected/Marcus has accessed details which should have been kept secure (1)</li> <li>It is a form of harassment (1) and the customer will be upset/intimidated/scared (1)</li> </ul>	4	Do not award a mark for mentioning the DPA as this is a legal issue.

Question			Answer/Indicative content	Mark	Guidance
9	a		ONE from:  eg <ul style="list-style-type: none"> <li>• To store old information (1)</li> <li>• To free up space (1)</li> <li>• Separate historical data (1)</li> <li>• Information is no longer needed daily (1)</li> <li>• To improve efficiency (1)</li> </ul>	1	Do not accept answers about backup/second copy.
9	b		ONE from:  eg <ul style="list-style-type: none"> <li>• Data needs to be uncompressed (1)</li> <li>• Difficult to find files (1)</li> <li>• Storage format may become redundant (1)</li> <li>• Data not immediately available (1)</li> </ul>	1	Do not accept damage.
9	c	(i)	ONE mark for a suitable medium:  eg <ul style="list-style-type: none"> <li>• Magnetic tape (1)</li> <li>• CD (1)</li> <li>• DVD (1)</li> <li>• (External) hard drive (1)</li> <li>• Cloud (1)</li> <li>• SSD (1)</li> <li>• USB stick (1)</li> </ul>	1	Do not accept USB on its own.



Question			Answer/Indicative content	Mark	Guidance
9	c	(ii)	<p>TWO marks for point plus expansion. May combine points from the examples below: eg</p> <ul style="list-style-type: none"> <li>• The data held may need to be accessed in the future (1) and this allows easy access (1)</li> <li>• Cable Ties will need to store a lot of information (1) and these devices are quite cheap for the amount of data it can hold (1)</li> <li>• The data needs to be reliably stored (1) and these devices are less likely to corrupt (1)</li> </ul>	2	<p>This answer IS dependent on 9c(i).</p> <p>Do not accept cheap/quite cheap without qualifying statement e.g. cheaper than.....</p>

**Section B total: 28 marks**

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