OCR
Oxford Cambridge and RSA

SAMPLE ASSESSMENT MATERIAL (SAM)

OCR Level 1 / 2 Cambridge National in IT

R050/01 IT in the digital world

MARK SCHEME

Duration: 1 hour 30 minutes

MAXIMUM MARK 70

Version: 4
Last updated: 09/11/22

(FOR OFFICE USE ONLY)

SAMPLE

This document consists of 11 pages

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Crossed Out Responses
If a student has crossed out a response and written a clear alternative response, then the crossed out response is not marked. If no alternative is given, examiners will give students the benefit of the doubt and mark the crossed out response if it is legible.

Multiple Choice Question Responses
When a multiple choice question has only a single, correct response and a student gives two responses (even if one of these responses is correct), no mark will be awarded, as it is not possible to determine which was the first response selected.

Contradictory Responses
When a student provides contradictory responses, no mark will be awarded, even if one of the answers is correct.

Short Answer Questions (usually worth only **one mark per response**)
If a student needs to give a set number of short answer responses, but gives more, only the set number of responses will be marked. The response space will be marked from left to right on each line and then line by line until the required number of responses have been marked. The remaining responses will not be marked.

Short Answer Questions (worth **two or more marks**)
If a student is required to provide a description of, say, three items or factors and four items or factors are provided, then marking will be similar to the above example (but downwards).

Longer Answer Questions
If a student provides two (or more) responses to a medium or high tariff question which only needs a single (developed) response, and does not cross out the first response, the first response will be marked.

Levels of response marking

a. **To determine the level** – examiners will start at the highest level and work down until they reach the level that matches the answer
b. **To determine the mark within the level**, they will consider the following:

Descriptor	**Award mark**
On the borderline of this level and the one below	At bottom of level
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)
Consistently meets the criteria for this level	At top of level

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Question			Answer	Mark	Guidance
1			• Start point (1) • End / finish point (1) • Decisions (1) • Processes (1) • Direction of flow (1)	2 x 1	Two from list These are the only answers that can be credited with marks.
2			• Type (1) • Size (1)	1	One from list These are the only answers that can be credited with marks.
3			• **C** - 432BJ (1)	1	Correct Answer Only (CAO)
4			• **B** – Interview (1)	1	CAO
5			• Cloud (1)	1	CAO
6			• Technical	1	CAO
7			• **C** – White Hat	1	CAO
8			• **Baiting** – Criminals promise goods to get the information they need (1) • **Scareware** - Criminals use computer programs designed to trick a user into buying and downloading unnecessary and dangerous software. (1)	2 x 1	CAO

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Question			Answer	Mark	Guidance
9			• **A** – data destruction	1	CAO
10			• Biometric device (1) • Firewalls (1) • RFID (1) • Secure backup (1)	1	One from list for one mark. These are taken from the unit specification Do not accept keypads as these are given in the question.
11			• **D** - Health and Safety at Work Act	1	CAO
12			• 4G/5G (1) • Bluetooth (1) • Mobile (wi-fi) hotspot (1) • Wi-fi (1) • Wired (1)	1	One from list for 1 mark These are taken from the unit specification
13			• World Wide Web (1)	1	CAO

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Question			Answer	Mark	Guidance
14	(a)		**Up to 3 marks for each data type and justification:** **Name** • Text (1st) • any type of character can be used (1) • names are usually only letters (1) • Award credit for any other suitable response **Cost** • Currency (1st) • as the £ sign is shown (1) • there are two decimal places / pence are shown (1) • Award credit for any other suitable response **Paid** • Boolean (1st) • there are only two choices (1) • The answer can only be yes or no / paid or not paid (1) • Award credit for any other suitable response	**3 x 3**	1st mark for each valid data type identified up to a maximum of 3 data types. 2 marks for justification of each data type identified. Do not accept marks for the justification without the data type being awarded a mark.
14	(b)	(I)	A description of a characteristic and why this is suitable for Monty Bella. • No moving parts (1) so Monty Bella can access the customer orders faster than on an external hard drive (1) • Can have a large capacity (1) so Monty Bella can store more customer orders without having to buy extra storage devices (1) • Can be removed from a digital device (1) and kept in a secure location to increase security of MB customer details (1) • Award credit for any other suitable response	**2**	Up to 2 marks for a description of a characteristic and why this makes the drive suitable for Monty Bella to store the customer orders.

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Question			Answer	Mark	Guidance
14	(b)	(ii)	• Cloud (1)	1	
15	(a)	(i)	**The purpose of an HCI:** • To allow interaction (1) between the user / customer and the software (1) • To allow the input and output (1) of data / order details (1) • Award credit for any other suitable response	2	Up to 2 marks for the purpose of an HCI. Accept examples relevant to context for order details e.g. meals needed, customer name
15	(a)	(ii)	**An explanation of an advantage and disadvantage of the use of a keyboard:** **Advantage** • Customers will have increased confidence in using the HCI (1) because they will be familiar with keyboard (input method)(1) • Movement around the HCI can be completed (1) as short-cut keys can be used / example e.g. Tab (1) • Data entry can be checked (1) in real time by the customer (1) • Verification check can be completed as order is entered (1) as data entered appears on the screen simultaneously (1) • Award credit for any other suitable response **Disadvantage** • If customers are unfamiliar with a keyboard (input method)(1) placing their order may be slow (1) • Customers may struggle to interact with the HCI (1) as they may have limited use of hands / fingers / wrists (1) • Award credit for any other suitable response	2 x 2	2 marks for explaining each advantage and disadvantage up to a maximum of 4 marks.

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<table>
<tr>
<td>15</td>
<td>(a)</td>
<td>(iii)</td>
<td>

Gesture (1)
Mouse (1)
Touch (1)
Voice (1)

</td>
<td>1</td>
<td>One from list for 1 mark

These are taken from the unit specification</td>
</tr>
<tr>
<td>15</td>
<td>(b)</td>
<td></td>
<td>An explanation of why a limited choice validation tool will reduce user errors:

Customers have to select a number from a drop down list (1) so reducing the chance of forgetting to define the number required (1)
Radio buttons next to the numbers (1) can provide a visual check that the order is correct (1)
Award credit for any other suitable response

</td>
<td>2</td>
<td>Up to 2 marks for a complete explanation of why a limited choice validation tool will reduce user errors</td>
</tr>
<tr>
<td>15</td>
<td>(c)</td>
<td></td>
<td>
<table>
<tr><th colspan="2">Layout</th><th></th><th colspan="2">Content</th><th></th><th>Total</th></tr>
<tr><td>4 marks</td><td>More than 1 clear sub-node</td><td rowspan="4">+</td><td>4 marks</td><td>All relevant content</td><td rowspan="4"></td><td>L3 = 7 or more marks</td></tr>
<tr><td>3 marks</td><td>1 clear sub - node</td><td>3 marks</td><td>Most relevant content</td><td>L2 = 3 - 6 marks</td></tr>
<tr><td>2 marks</td><td>At least 2 nodes</td><td>2 marks</td><td>Some relevant content</td><td>L1 = 1- 3 marks</td></tr>
<tr><td>1 mark</td><td>Basic structure</td><td>1 mark</td><td>Limited relevant content</td><td></td></tr>
</table>
</td>
<td>8</td>
<td>Mark layout and content separately and add marks together to get level and total mark for question.

Indicative content:

Colour scheme (annotated)
House style
Logo
Help message
Error messages
Buttons for navigation
Search facility
Contact details of restaurant

</td>
</tr>
</table>

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16	**(a)**		**An explanation of why user testing should be carried out:** • To check the user journey through the Monty Bella website is error free (1) so the user experience of the Monty Bella website is positive (1) • To make sure that the website responds to user interactions (1) as required by Monty Bella clients requirements (1) • To identify any errors in the customers use of the system (1) so remedial action can be taken before the Monty Bella website goes live (1) • Award credit for any other suitable response	**2**	2 marks available for an explanation of why user testing should be carried out
16	**(b)**		**An explanation of one advantage of using a leaflet:** • An existing template can be used (1) to maintain consistency of presentation of information (1) • The house style of Monty Bella restaurant / takeaway service can be used (1) to ensure customer familiarity / recognition (1) • A range of features / text and graphics can be included (1) to provide information for different demographic groups of customers (1) • Award credit for any other suitable response	**2**	2marks available for an explanation of one advantage of using a leaflet. The focus of the question is on the restaurant advertising the takeaway service.
16	**(c)**		**An explanation of one disadvantage of using email:** • If the leaflet is sent as an attachment (1) it may go into the spam / junk folder because of the ISP rules (1) • If the leaflet is embedded into the body of the email (1) the size of the email may be too large to be delivered (1) • Award credit for any other suitable response	**2**	2 marks available for an explanation of one disadvantage of using email to distribute the leaflet. The focus of the question is on the customers receiving the leaflet by email.
17	**(a)**		• Data Protection Act / DPA (1)	**1**	CAO The date of the Act does not have to be provided or ignore if incorrect

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17	**(b)**		**Any two actions from list:** • Customer details must be kept secure (1) • Customers details must be deleted if requested (1) • Customer details must be kept up to date (1) • Changes in customer details must be actioned (1) • Customers must be told what their data is being used for (1) • Award credit for any other suitable response	**2 x 1**	Two actions from list for one mark each This can be awarded marks if the answer to Q17 (a) is incorrect
17	**(c)**		**An explanation of how usernames & passwords increase security:** • The username authenticates the user (1) when a valid password needs to be entered (1) • The username & password restricts access to the website (1) without a valid username and correct password access will be denied (1) • Award credit for any other suitable response	**2**	Up to 2 marks for a complete explanation of how a username & password will increase security of the takeaway ordering website
17	**(d)**		**An explanation of how a firewall will increase security:** • Will block access to the Monty Bella website (1) if the predefined rules are not met (1) • Will establish a barrier between the Monty Bella website and the internet / WWW (1) by monitoring incoming/outgoing traffic (1) • Award credit for any other suitable response	**2**	Up to 2 marks for a complete explanation of how a firewall will increase security

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18			**An explanation of an advantage and disadvantage of the use of an online survey:** **Advantage** • Large numbers of customers (1) can be asked to complete the survey (1) • Cheaper than interviews (1) for large numbers of customers (1) • <u>All</u> the responses (1) will be in the same format (1) • Comparisons of the results (1) are easy to formulate (1) • A range (1) of different types of questions can be included (1) • Award credit for any other suitable response **Disadvantage** • Access to the internet is needed (1) to send the survey to customers / receive the customer responses (1) • The survey needs to be carefully designed (1) to get the data required (1) • Questions (1) need to be clearly worded (1) • Award credit for any other suitable response	**2 x 2**	2 marks for explaining each advantage and disadvantage up to a maximum of 4 marks. The focus of the question is the restaurant.

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19			**Indicative content** **Advantages** • Increase access to information on the internet • Better communication - Messages can be left for staff • Reminders can be set • Voice commands can be used • Apps can be accessed e.g. new recipes can be found • Multiple devices can be connected to provide communication in the workplace. • If the smart device has a screen, then multimedia content can be accessed e.g. videos of how to cook recipes • Voice recognition to tailor content to specific users • Food supplies can be monitored and automatically ordered from suppliers • Heating etc can be controlled by the device meeting pre-set user limits **Disadvantages** • Security needs to be strong to stop unauthorised access / hackers • Devices from different manufacturers may not be compatible • Devices cannot be used if there is no internet access • If the device loses power, then all devices controlled may return to factory settings – e.g. heating may not come on at specified times / to temperature set • Decrease in privacy	**9**	**Band 3: [7-9 marks]** A thorough discussion showing detailed knowledge and understanding of more than one advantage AND disadvantage to the restaurant of using a smart device connected to the IoE. Relevant and appropriate examples are given. Consistently used appropriate terminology. *Any relevant consideration of an advantage AND disadvantage is sufficient for bottom of mark band.* **Band 2: [4-6 marks]** An adequate discussion showing some knowledge of at least one advantage AND one disadvantage to the restaurant of using a smart device connected to the IoE. Some relevant examples are provided although these may not always be appropriate. Some use of appropriate terminology. *Any relevant consideration of an advantage **or** disadvantage is sufficient for bottom of mark band.* **Band 1: [1-3 marks]** A brief discussion showing limited knowledge and understanding relevant to the use of a smart device. Little or no use of appropriate terminology. **0 marks** No response worthy of credit.

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