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Oxford Cambridge and RSA

# GCSE

# ICT

Unit **B063:** ICT in Context

General Certificate of Secondary Education

## Mark Scheme for June 2017

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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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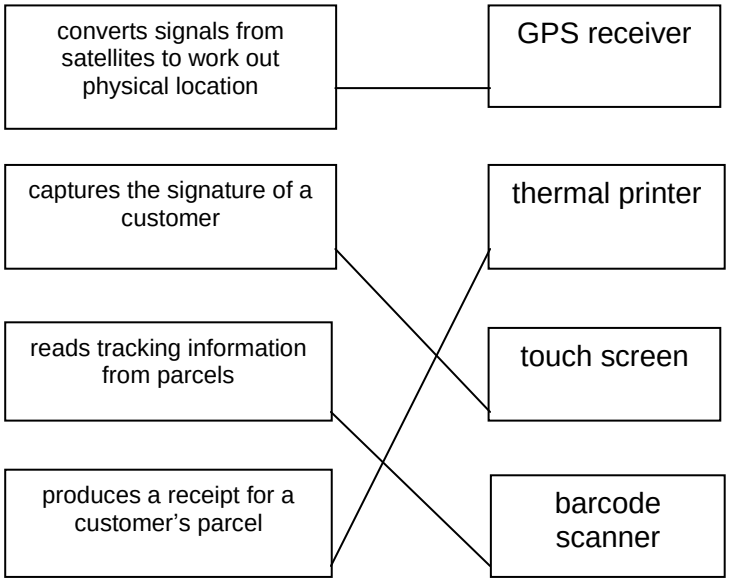
**Annotations –**

| Annotation | Meaning |
|---|---|
| | 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. |
| | Seen: this annotation **MUST** be used on all responses that are NR (no response),and on parts of question that are NR, and on Level of Response questions. |
| | **Tick**: this annotation **MUST** be used to indicate where credit has been given in a response.<br>NB the number of ticks shown on a response must equal the mark awarded unless clearly stated to the contrary below in Section. 11. |
| | **Cross: this annotation is used to indicate where a response is clearly wrong/incorrect or not awarded credit.** |
| Other available annotations: | The annotations toolbar has other available annotations which may be used: TV, BOD and NBOD, Caret (to e.g. indicate that the candidate has omitted a required part of the response), Highlight, REP, NAQ, ?, ^, and the line overlay. These should be used sparingly or as directed by Team Leaders/Supervisors. |

| Question | | | Answer / Indicative Content | Mark | Guidance |
|---|---|---|---|---|---|
| 1 | | | 1 mark per correct line<br>  <br> | [4] | If more than one line per box, do not award either |

| Question | | | Answer / Indicative Content | Mark | Guidance |
|---|---|---|---|---|---|
| 2 | (a) | | One mark for each of two identifications and up to two marks for each of two descriptions, e.g.<br><br>**Problem Definition/Feasibility/ Investigation/Research (1)**<br>Gathering information about PDC requirements (1)<br>Identifying issues in development(1).<br><br>**Planning (1)**<br>Working out time frames (1) Allocating resources (1).<br><br>**Design (1)**<br>Hardware selection made (1) Screen layout designed(1).<br><br>**Implementation/Development/Creation (1)**<br>Design is used (1) and App is coded (1)<br>Pilot/Phased/Direct (1) roll out of the app (1)<br><br>**Testing (1)**<br>Testing takes place (1) using the test plan (1).<br><br>**Evaluation/Feedback (1)**<br>Looks back at the brief (1) to make sure requirements are met (1).<br><br>Any other valid suggestion in context | **[6]** | Marks should be credited for any discrete stage of a recognised methodology.<br><br>Implementation could also mean installation depending on the methodology.<br><br>If no stage identified, do not award marks for description<br><br>Answers must be in context to the scenario (an App for customers to send parcels and track deliveries) |
| | (b) | | Two marks including a point and suitable expansion, e.g.<br>• App may not work as intended (1) so customers/staff would be disappointed (1).<br>• Too many features could be added (1) so app never gets finished (1).<br>• Development of app wouldn't follow a process (1) so could be badly designed (1)<br>• Any other valid suggestion in context | **[2]** | |

| | | | | | |
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| **3** | **(a)** | | Two marks per description, e.g.<br><br>• Use strong password (1) including numbers and symbols (1).<br>• Don't use same password (1) as on other sites (1).<br>• Don't save credit card information (1) on the PDC site (1)<br>• Use HTTPS/Use secure version (1) of the PDC web site (1)<br>• Don't use public wifi (1) to access the PDC web site (1)<br>• Any other valid suggestion in context | **[2]** | Do not accept password on its own/create username and password |
| | **(b)** | | Two marks including suitable point and expansion, e.g.<br><br>• Encoding data (1) so it can only be read by the recipient (1).<br>• Scrambling the data (1) using a key (1)<br>• Data is coded (1) so it can't be read without a key (1)<br>• Any other valid suggestion in context | **[2]** | Answers should state what encryption is, rather than the purpose of encryption. |
| | **(c)** | | Two marks including suitable point and expansion, e.g.<br><br>• Customers don't need to wait around (1) as they can see where the parcel is/when it will be delivered (1)<br>• Customers can see where their package is (1) and how long it will take to arrive (1)<br>• PDC don't need a lot of staff (1) to deal with customers tracking queries (1)<br>• Any other valid suggestion in context | **[2]** | Can be a benefit to customers or to PDC |

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| **4** | **(a)** | | Two marks for each of two descriptions, e.g.<br><br>• Wireless network card (1) to send wireless packets (1).<br>• Wireless access point/router (1) to receive information from handhelds (1).<br>• Bluetooth transceiver (1) to send Bluetooth packets (1). | **[4]** | |
| | **(b)** | | Two marks for each of two advantages and two marks for disadvantage, e.g.<br><br>**Advantage**<br>• Information is updated straight away (1) so tracking information is always accurate (1).<br>• Don't need to attach cables (1) so is more convenient for the driver (1).<br>• Contact not needed (1) so easier to scan lots of items (1)<br>• Any other valid suggestion in context<br><br>**Disadvantage**<br>• If no 3g/4g/wifi/wireless coverage (1) then the data can't be sent (1).<br>• Interference from other sources (1) can make it difficult to get data/scan item (1)<br>• Wireless signals are broadcast (1) and so may be intercepted (1)<br>• Any other valid suggestion in context | **[6]** | |

| Question | | | Answer | Marks | Guidance | |
|---|---|---|---|---|---|---|
| | | | | | Content | Levels of response |
| 5 | | | Indicative Content:<br><br>**Advantages**<br>• Parcels can be given unique tag<br>• Allows parcels to be located easily in warehouse<br>• No need to scan individual parcels by hand<br>• Saves money as less staff needed<br>• NFC tags not as easily damaged<br><br>**Disadvantages**<br>• Expensive to buy system<br>• Tags cost more than printing bar code<br>• Extra complexity in managing the system<br>• Privacy issues with tags not disarmed after leaving warehouse | **[8]** | | **Level 3 (7 - 8 Marks)**<br>Candidates will explain reasons for the introduction of NFC by Progress Delivery Company. A conclusion will be present.<br><br>The information will be relevant, clear, organised and presented in a structured and coherent format.<br><br>Specialist terms will be used correctly and appropriately.<br><br>At the bottom of the mark band, a conclusion may not be present.<br><br>There will be few, if any, errors in grammar, punctuation and spelling.<br><br>**Level 2 (4 - 6 marks)**<br>Candidates will describe reasons/explain a reason for the introduction of NFC by Progress Delivery Company.<br><br>At the bottom of the mark band a single reason may be described.<br><br>Specialist terms will be used appropriately and for the most part correctly.<br><br>There may be occasional errors in grammar, punctuation and spelling.<br><br>**Level 1 ( 1 - 3 marks)** |

| Question | | | Answer | Marks | Guidance | |
|---|---|---|---|---|---|---|
| | | | | | | The answer may be a list of points or description not in context of why NFC may be used by PDC.<br>There may be little or no use of specialist terms.<br>Errors of grammar, punctuation and spelling may be intrusive.<br><br>**0 marks**<br>Evidence not worthy of credit. |

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| **6** | | | One mark per item, max 6<br><br>• Map of suitable size (1)<br>• Location showing estimated date & time of arrival (1)<br>• Button or other control to change delivery address (1)<br>• Button or other control to change delivery date (1)<br>• Suitable use of white space (1)<br>• Works as an online form (1) | **[6]** | |
| **7** | **(a)** | | Four from, e.g.<br><br>• Parcel ID(1)<br>• Customer First Name (1)<br>• Customer Surname (1)<br>• Customer Address Line 1 (1)<br>• Customer Address Line 2 (1)<br>• Customer Town (1)<br>• Customer Post Code (1)<br>• Parcel weight (1)<br>• Parcel height (1)<br>• Parcel width (1)<br>• Parcel depth (1)<br>• Parcel description (1)<br>• Any other valid suggestion in context (1) | **[4]** | Customer/recipient details/address – too vague<br><br>Customer address mark points can be repeated for recipient address mark points.<br><br>Customer name/Recipient name – 1 mark each, then don't award surname/first name |
| | **(b)** | | Two marks for each of two explanations, e.g.<br><br>• More efficient/ Saves time (1) as data is transferred automatically into PDC's system/ as don't have to enter orders manually (1)<br>• Reduces human error (1) in rekeying information to PDC's system (1)<br>• Any other valid suggestion in context | **[4]** | Do not accept quicker without suitable qualification |

| | | | | | |
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| | **(c)** | | Two marks including suitable point and expansion, e.g.<br><br>• Parcels could get sent to the wrong destination (1) because address could be sent in the wrong format (1)<br>• So the data matches (1) what PDC is expecting (1)<br>• Any other valid suggestion in context | **[2]** | Do not accept answers relating to translating between different EDI types. |

| Question | | | Answer | Marks | Guidance | |
|---|---|---|---|---|---|---|
| | | | | | Content | Levels of response |
| 8 | | | Indicative Content:<br><br>• Make sure information is accurate<br>• Only keep information for as long as is needed<br>• Ask for permission to use information for marketing<br>• Allow customers to see data via subject access request<br>• Publish privacy policy so customers know what is happening with their data<br>• Add security features such as firewall or AV | **[8]** | | **Level 3 ( 7 – 8 marks)**<br>Candidates will explain steps that PDC must take to comply with the Data Protection Act<br><br>The information will be relevant, clear, organised and presented in a structured and coherent format.<br><br>Specialist terms will be used correctly and appropriately.<br><br>There will be few, if any, errors in grammar, punctuation and spelling.<br><br>**Level 2 (4 - 6 marks)**<br>Candidates will describe steps/explain a step that PDC must take to comply with the Data Protection Act.<br><br>At the bottom of the mark band a single step may be described<br><br>Specialist terms will be used appropriately and for the most part correctly.<br><br>There may be occasional errors in grammar, punctuation and spelling<br><br>**Level 1 (1 – 3 marks)**<br>The answer may be a list of steps or weak description not in context of one step that PDC should take to comply with the Data Protection |

| Question | | | Answer | Marks | Guidance | |
|---|---|---|---|---|---|---|
| | | | | | Content | Levels of response |
| | | | | | | Act.<br><br>There may be little or no use of specialist terms.<br><br>Errors of grammar, punctuation and spelling may be intrusive. |

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