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# Mark Scheme (Results)

## October 2021

Pearson Edexcel International
Award In Lower Secondary Computing (LCP11)
Paper 01

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**General Marking Guidance**

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

## Section A

| Question number | Answer | Mark |
|---|---|---|
| **1a** | Award one mark for any of:<br>• (A system of) connected/linked computers/devices.<br>• A collection of servers | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **1b** | **The only correct answer is C**<br><br>*A is not correct because GPS data is not included in a packet header*<br>*B is not correct because HTML data is not included in a packet header*<br>*D is not correct because web server URLs are not included in a packet header (the IP address would be)* | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **1c** | Award one mark for any of:<br>• Protect systems/networks/data<br>• Prevent users seeing inappropriate content<br><br>Do not award answers relating to malware | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **2** | Near Field Communication / NFC | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **3** | **The only correct answer is B**<br><br>*A is not correct because a browser is used to view WWW content*<br>*C is not correct because a protocol is used to transfer WWW content*<br>*D is not correct because a search engine is used to find WWW content.* | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **4a** | Award one mark for each up to a maximum of two marks:<br>• Key logging<br>• Spyware<br>• Hacking<br>• Social media posts<br><br>Award one mark for 'eavesdropping' if a mark from points 1-3 not already awarded. | **(2)** |

| Question number | Answer | Mark |
|---|---|---|
| **4b** | Award one mark for any one of the following up to a maximum of two:<br><br>• Do not post personal information online<br>• Set account to 'private'<br>• Block users you do not know<br>• Report suspicious behaviour<br>• Install anti-malware<br>• Use a pseudonym<br>• Use an avatar<br>• Ensure devices are secured (e.g. enable lock screen)<br>• Use a (strong) password<br>• Change your password regularly<br>• Do not share your password<br>• Be alert for phishing emails<br>• Avoid over-sharing<br>• Use a VPN<br>• Disable GPS tracking | **(2)** |

| Question number | Answer | Mark |
|---|---|---|
| **5** | Award one mark for any of:<br>• User<br>• Peripherals<br>• Application software<br>• Hardware | **(1)** |

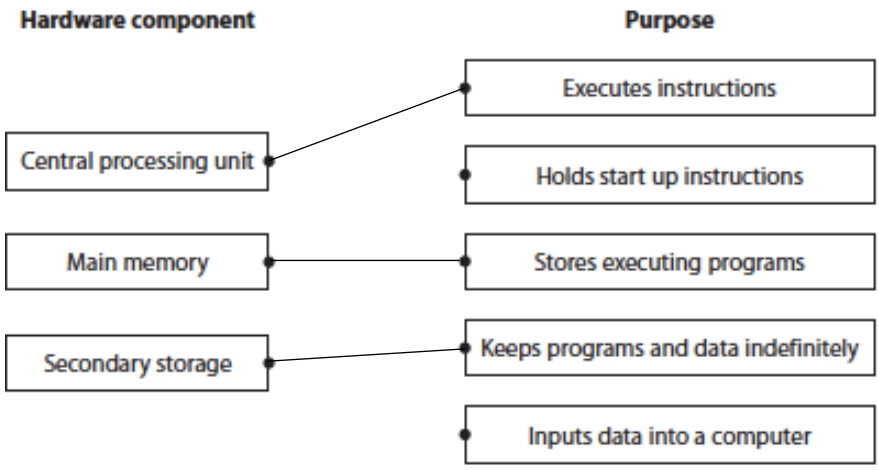
| Question number | Answer | Mark |
|---|---|---|
| **6** | **The only correct answer is B**<br><br>*A is not correct because applications are not utilities*<br>*C is not correct because operating systems are not utilities*<br>*D is not correct because programming software is not a utility* | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **7** | **The only correct answer is A**<br><br>*B is not correct because = assigns a value to a variable*<br>*C is not correct because = assigns a value to a variable*<br>*D is not correct because = assigns a value to a variable* | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| 8a | Integer/floor division<br>Modulus / modulo / mod<br><br>Accept 'division with no remainder' for 'integer division'<br>Accept 'remainder' for 'modulus / modulo' | (2) |

| Question number | Answer | Mark |
|---|---|---|
| 8b | **The only correct answer is A**<br><br>*B is not correct because OR is a logical operator*<br>*C is not correct because + is an arithmetic operator*<br>*D is not correct because () is not an operator* | (1) |

| Question number | Answer | Mark |
|---|---|---|
| 9 | **The only correct answer is A**<br><br>*B is not correct because copy is not a feature of both search and sort algorithms*<br>*C is not correct because shuffle is not a feature of both search and sort algorithms*<br>*D is not correct because swap is not a feature of both search and sort algorithms* | (1) |

| Question number | Answer | Mark |
|---|---|---|
| 10 | Award 1 mark for each correct line, up to a maximum of 3 marks.<br>  <br><br>Do not award lines between boxes where a box on the left has lines to multiple boxes on the right. | (3) |

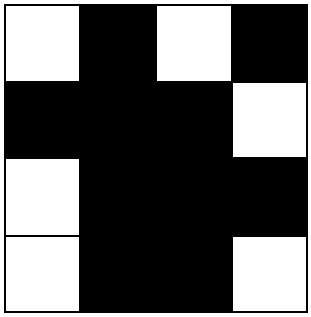
| Question number | Answer | Mark |
|---|---|---|
| **11a** | hard<br>Accept: mechanical<br><br>(disc) drive<br>Do not accept 'disc' on its own | **(2)** |

| Question number | Answer | Mark |
|---|---|---|
| **11b** | vibrations | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **11c** | **The only correct answer is A**<br><br>*B is not correct because solid-state drives do not spin*<br>*C is not correct because solid-state drives are not more secure*<br>*D is not correct because solid-state drives are not read only* | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **12a** | **The only correct answer is D**<br><br>*A is not correct because there are 1024 bytes in a kibibyte*<br>*B is not correct because there are 1024 bytes in a kibibyte*<br>*C is not correct because there are 1000 bytes in a kilobyte* | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **12b** | Award one mark for each correct nibble:<br>0110 0110 | **(2)** |

| Question number | Answer | Mark |
|---|---|---|
| 12c | 1 mark for any correct row<br>2 marks for all rows correct<br><br>  <br><br>Award marks for inverse or rotated image. | (2) |

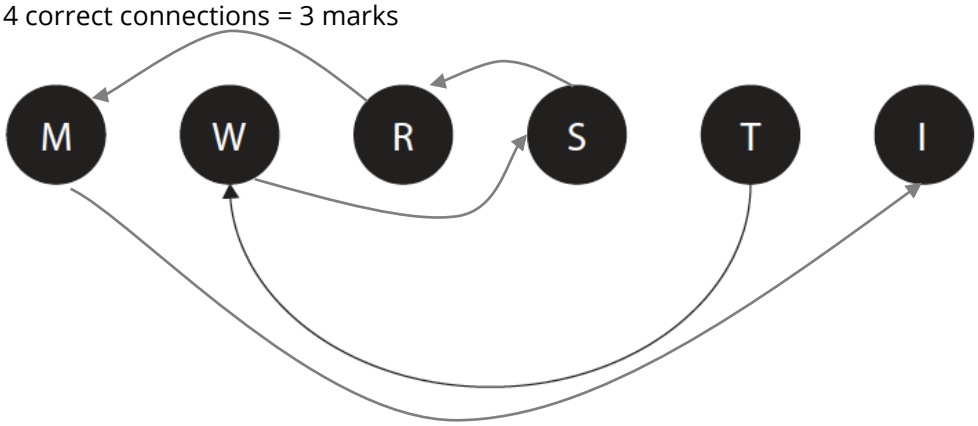
| Question number | Answer | Mark |
|---|---|---|
| 13a | **The only correct answer is D**<br><br>*A is not correct because check is not an algorithm*<br>*B is not correct because check is not a character*<br>*C is not correct because check is not an integer (and neither is the data type assigned to it)* | (1) |

| Question number | Answer | Mark |
|---|---|---|
| 13b | Award one mark for any of:<br>• Takes/waits for user input<br>• Assigns it to 'check' | (2) |

| Question number | Answer | Mark |
|---|---|---|
| 14 | <table><tr><th>Code</th><th>Output</th></tr><tr><td>print (w[1])</td><td>o</td></tr><tr><td>print (w[5:])</td><td>icated</td></tr></table><br>Award 'licated' for second row. | (2) |

| Question number | Answer | Mark |
|---|---|---|
| 15a | A description to include three linked points from:<br><br>Starting with the first/last item (1), a comparison is made **with the target item** (1) repeatedly (1) until they match / until the end of the list (1) when the algorithm ends / when the position of the target item is returned / when it returns found/not found (1) | **(3)** |

| Question number | Answer | Mark |
|---|---|---|
| 15b | **The only correct answer is A**<br><br>*B is not correct because the fewest comparisons would be needed if the target value was in the first position*<br>*C is not correct because the fewest comparisons would be needed if the target value was in the first position*<br>*D is not correct because the fewest comparisons would be needed if the target value was in the first position* | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| 16 | 1 correct connection = 1 mark<br>3 correct connections = 2 marks<br>4 correct connections = 3 marks<br><br>  <br><br><br>Do not award answers with more than one line from any device.<br><br>Award maximum 1 mark if all lines are correct, but direction not shown correctly. | **(3)** |

| Question number | Answer | Mark |
|---|---|---|
| 17a | Award one mark for any of:<br>• Unicode can represent more characters<br>• Russian/Cyrillic characters not represented by ASCII | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **17b** | Award one mark for any of:<br>• 128<br>• $2^7$ | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **18** | Award one mark for identification and one mark for the linked reason, up to a maximum of two marks.<br><br>**Identification**:<br>More bits are used.<br>**Linked reason**:<br>Because more representations of the amplitude are needed.<br><br>Alternative response example:<br>Increasing the sample rate means that more samples will be taken and more data will be generated because the amplitude of the sound at each sampling point is represented by a fixed number of bits. | **(2)** |

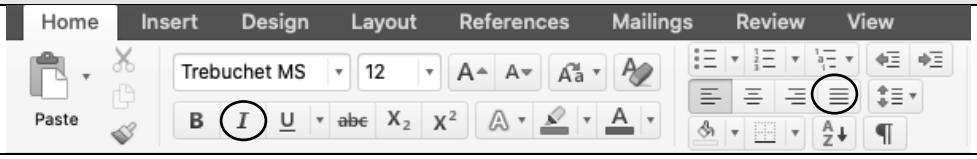
| Question number | Answer | Mark |
|---|---|---|
| **19a** | 9<br>8<br>7<br>6<br>5<br>4<br>3<br>2<br>1<br>(Accept if written horizontally) | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **19b** | number | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **20** | `num1 = input("Please enter a number")`<br>`num1 = int(num1)` | **(4)** |

| | | |
|---|---|---|
| | ```<br>if num1 > 0:<br>  print("Your number is positive")<br>elif num1 < 0:<br>  print("Your number is negative")<br>else:<br>  print("You entered 0")<br>```<br>Award float for int. | |

## Section B

| Question number | Answer | Mark |
|---|---|---|
| 21a |  | **(2)** |

| Question number | Answer | Mark |
|---|---|---|
| 21b | Award one mark for any of:<br>• Text box<br>• Callout<br>• Shape<br>• Table<br>• Header<br>• Footer<br>• Page<br>• Chart<br>• References<br><br>Accept image | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| 22 | Easier to visualise/identify ratios/relationships | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| 23 | pixel | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| 24a | **The only correct answer is B**<br><br>*A is not correct because some cloud software is free*<br>*C is not correct because cloud software is online*<br>*D is not correct because not all cloud software is WYSIWYG* | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **24b** | Award one mark for each up to a maximum of two marks.<br>• animations<br>• transitions<br>• multimedia content / video<br>• slide duration | **(2)** |

| Question number | Answer | Mark |
|---|---|---|
| **25a** | **The only correct answer is B**<br><br>*A is not correct because a primary key is not a password*<br>*C is not correct because a primary key is not always the first key*<br>*D is not correct because a primary key is not a single criterion used in a query* | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **25b** | **The only correct answer is D**<br><br>*A is not correct because Date/Time would store the month as numeric data*<br>*B is not correct because Logical can only store logical values*<br>*C is not correct because Number could not store the name* | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **25c** | **The only correct answer is B**<br><br>*A is not correct because reports do not add data collection*<br>*C is not correct because reports do not provide analysis tools*<br>*D is not correct because reliability is not improved at this stage* | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **26** | Award one mark for any of:<br>• Spreadsheet<br><br>Accept Database | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **27a** | Number | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **27b** | C9<br><br>Allow '30' | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **27c** | Award one mark for each bracket and one mark for the * operator.<br>=(E6+E7)*(C9+C10+1)<br><br>Accept alternative expressions e.g. sum(E6:E7) | **(3)** |

| Question number | Answer | Mark |
|---|---|---|
| **27d** | Award one mark for use of sum and one mark for correct cell range<br>=SUM(C11:C14)<br><br>Allow =SUM(C11+C12+C13+C14) | **(2)** |

| Question number | Answer | Mark |
|---|---|---|
| **28** | Award one mark for any one of:<br><br>• Resolution/quality is not reduced when enlarged/resized<br>• Smaller file sizes<br>• Transfers more quickly<br>• Uses less bandwidth | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **29** | **The only correct answer is B**<br><br>*A is not correct because compression will not remove part of the image*<br>*C is not correct because enhancing will not remove part of the image*<br>*D is not correct because resizing will not remove part of the image* | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **30a** | body | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **30b** | An explanation to include:<br><br>It helps navigation (1) because it provides links from one part of a document to another / allows users to jump between sections / all information does not have to be in one page (1)<br>OR<br>They enable users to jump to a specific location in a web page (1) so users do not have to read the whole page to find content (1) | **(2)** |

| Question number | Answer | Mark |
|---|---|---|
| **31** | Award one mark for any of:<br>• Read only<br>• View | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **32** | Award one mark for any of:<br>• So the **file** size is reduced / takes up less (storage) space<br>• So they download/upload more quickly.<br>• So less bandwidth is used when uploading them | **(1)** |

| Question number | Answer | Mark |
|---|---|---|
| **33** | A description to include two linked points from:<br><br>Select both (1) and group them (1) | **(2)** |

| Question number | Answer | Mark |
|---|---|---|
| **34** | An explanation to include:<br><br>To provide consistency of documentation (1) because it helps brand/identify the company to the audience / because it supports accessibility (1) | **(2)** |

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