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Cambridge Assessment International Education

# Cambridge International AS & A Level

**INFORMATION TECHNOLOGY** **9626/02**

Paper 2 Practical **October/November 2023**

MARK SCHEME

Maximum Mark: 90

**Published**

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the October/November 2023 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.



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**[Turn over**

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**Generic Marking Principles**

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

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| Task | Answer | Marks |
|---|---|---|
| 1 | Columns A and E right aligned, C and G left aligned | **1** |
| | Columns B and F centre aligned | **1** |
| | Data entry 100% accurate | **1** |
| | Correct merged cells with centre aligned, white text black background | **1** |

| Task | Answer | Marks |
|---|---|---|
| 2 | Worksheets added with short and meaningful sheet names | **1** |
| | Frost factor data formatted as percentage | **1** |

| Task | Answer | Marks |
|---|---|---|
| 3 | B3 Validation rule restricts to either the letter Y or y | **1** |
| | B3 Validation rule allows a blank cell | **1** |
| | B3 Appropriate input message | **1** |
| | B3 Appropriate error message | **1** |
| | Same validation and messages applied to B4 | **1** |
| | No drop-down menu | **1** |

| Task | Answer | Marks |
|---|---|---|
| 4 | B6 Validation rule restricts to list … | **1** |
| | … from workbook soil-type =soil! | **1** |
| | … correct cell range A$3:$A$16 | **1** |
| | B6 Appropriate input and error messages | **1** |
| | B7 Validation rule restricts to list from workbook climate | **1** |
| | … correct cell range $A$3:$A$7 | **1** |
| | B7 Appropriate input and error messages | **1** |

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| Task | Answer | Marks |
|---|---|---|
| 5 | B14 VLOOKUP( ) | **1** |
| | … B6, … | **1** |
| | … soil! … | **1** |
| | … A3:C16 … | **1** |
| | … ,2 … | **1** |
| | … ,0 | **1** |
| | Results of the lookup all/1000 | **1** |

| Task | Answer | Marks |
|---|---|---|
| 6 | B15 VLOOKUP(B6,soil!A3:C16 … | **1** |
| | … ,3,0) | **1** |
| | Results of the lookup all /1000 | **1** |

| Task | Answer | Marks |
|---|---|---|
| 7 | B15 results of step 6 * | **1** |
| | … (1+ … ) | **1** |
| | … VLOOKUP( ) | **1** |
| | … B7, | **1** |
| | … climate! | **1** |
| | … A3:B7 | **1** |
| | … ,2,0 | **1** |

| Task | Answer | Marks |
|---|---|---|
| 8 | B16 =B11+B14-0.1 | **1** |

| Task | Answer | Marks |
|---|---|---|
| 9 | B17 =ROUNDUP( ) | **1** |
| | … B14*B15*B16 | **1** |
| | … ,1 | **1** |

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| Task | Answer | Marks |
|---|---|---|
| 10 | F14 =B14 and F15 =B15 | **1** |

| Task | Answer | Marks |
|---|---|---|
| 11 | F16 =2* (F11+F12) - 0.4 | **1** |

| Task | Answer | Marks |
|---|---|---|
| 12 | F17 =ROUNDUP(F14*F15*F16,1) | **1** |

| Task | Answer | Marks |
|---|---|---|
| 13 | B18 =ROUND( … ,0) | **1** |
| | … B17*124.3654 | **1** |
| | F18 =ROUND(F17*124.3654,0) | **1** |

| Task | Answer | Marks |
|---|---|---|
| For example =IFERROR( function for cell ,"Unsuitable for strip foundations") | | |
| 14 | Appropriate error trap function with correct syntax | **1** |
| | … with appropriate error message | **1** |
| | … in all of B14-B18 and F14, F15, F17, F18 | **1** |
| | … in F16 | **1** |

| Task | Answer | Marks |
|---|---|---|
| 15 | Conditional formatting applied to range E8:G18 | **1** |
| | … with Formula … | **1** |
| | … =$B$3 … | **1** |
| | … ="Y" | **1** |
| | Formatted with same white foreground and background … | **1** |
| | Conditional formatting applied to range A8:C18 | **1** |
| | … with Formula =$B$4="Y" | **1** |
| | Formatted with same white foreground and background | **1** |

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| Task | Answer | Marks |
|---|---|---|
| 16 | QSA2 - Data entry correct | **1** |
| | … cost of concrete $821 in dollars with 0 dp | **1** |
| | QSA2 - Cells in E8:G18 not visible | **1** |
| | QSA3 - Data entry correct | **1** |
| | … appropriate error message in correct format | **1** |
| | … duplicated in F14 to F18 | **1** |
| | QSA3 - Cells in A8:C18 not visible | **1** |
| | QSA4 - Data entry correct | **1** |
| | … cost of concrete $510 formatted as dollars with 0 dp | **1** |
| | QSA5 - Data entry correct | **1** |
| | … cost of concrete $585 | **1** |

| Task | Answer | Marks |
|---|---|---|
| 17 | Problem identified as if Y in B3 and B4 nothing is visible. | **1** |
| | Use validation/conditional formatting … | **1** |
| | … to prevent two Y values showing at same time/to flag this as an error for the user | **1** |
| | Alternative answer:<br>Problem<br>… if length + width of building is less than 0.2 then zero footings<br>Appropriate solution<br>… ensure validation for minimum length<br>… minimum width | **1** |

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| Task | Answer | Marks |
|---|---|---|
| 18 | ERD created with round cornered rectangles | **1** |
| | Conceptual ERD with entities and attributes only … | **1** |
| | … Entity names above separator line | **1** |
| | … Appropriate entity names | **1** |
| | Relationship created between entities | **1** |
| | … with 1 at customer end | **1** |
| | … and correct symbol used | **1** |
| | … with many at invoice end | **1** |
| | … and correct symbol used | **1** |
| | Customer attributes<br>… Customer_ID | **1** |
| | … Customer_name | **1** |
| | At least 2 customer address attributes | **1** |
| | Invoice attributes<br>… Invoice_No | **1** |
| | Customer_ID | **1** |
| | … Project | **1** |
| | … Service | **1** |
| | … Cost | **1** |
| | All attributes<br>… No spaces/special characters other than - or _ | **1** |

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