Cambridge Assessment International Education

Cambridge IGCSE™ (9–1)

INFORMATION AND COMMUNICATION TECHNOLOGY **0983/31**

Paper 3 Spreadsheets and Website Authoring **May/June 2023**

MARK SCHEME

Maximum Mark: 70

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 May/June 2023 series for most Cambridge IGCSE, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

[Turn over

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.

Question	Answer	Marks
1	Footer: File name with no path on left Candidate details on right	**2**
2	Rows 1 & 13: Correct cells merged and centred Grey background Bold and italic, 16 point A6:C11: Merged cells Right aligned Wrapped as shown Row 14: Centre aligned horizontally Centre aligned vertically Wrapping as shown Cell borders as shown	**10**
3	Landscape, fully visible with row & column headings	**1**
4	B3 AVERAGE(…) … B15:B45 B4 AVERAGE(B46:B73) C3 AVERAGE(E15:E45) C4 AVERAGE(E46:E73) D3 AVERAGE(H15:H45) D4 AVERAGE(H46:H73) All 6 =ROUND(… ,1) for all 6 formulae	**8**
5	D6 =COUNTIF(C$15:C$73,">0") D7 =COUNTIF(F$15:F$73,">0") D8 =COUNTIF(I$15:I$73,">0")	**3**
6	D9 =COUNTIF(C15:C73, …) ,">7.5"	**2**
7	D10 =ROUNDUP(…,0) AVERAGE(D15:D45)	**2**
8	=COUNTIF(D15:D45,"<5")	**1**
9	Printout Landscape row & column heads fully visible	**1**
10	Values 2 Cells A1:D11 only Portrait orientation & single page fully visible No row & column headings	**3**

Question	Answer	Marks
11	Chart Appropriate chart type Appropriate title Month as category axis with axis title Sunshine plotted with correct values … on primary value axis with axis title Rainfall plotted with correct calculated values … on secondary value axis with axis title … maximum scale set to 100 Appropriate legend, chart easily read, no truncation/overlapping	**9**
12	CSS: All 4 correct styles selected Using single selector Font-family: Calibri , "Helvetica Neue" in speech marks , sans-serif; Correct CSS syntax with selector { }	**6**
13	Head section: <head> <title>Weather Data</title> <meta …> … charset= … … "ISO-8859-1" <meta name= … > … "author" … … content="TawaraWeb A Candidate" <meta name= … > … "description" … … content="Weather data for the Tawara region"> <meta name="viewport" …> … content="width=device-width … …, initial-scale=2.0" <meta name="keywords" … > … content=" … " … Tawara … … comma separator … weather <base … > … Target="_blank" </head>	**22**

Evidence document

Layout

Rows 1 & 13	Correct cells merged and centred	1 mark
	Grey background	1 mark
	Bold and italic, 16 point	1 mark
A6:C11	Merged cells	1 mark
	Right aligned	1 mark
Row 11	**Only** row 11 wrapped as shown	1 mark
Row 14	Centre aligned horizontally	1 mark
	Centre aligned vertically	1 mark
	Wrapping as shown	1 mark
All	Cell borders as shown	1 mark
Print	Landscape, fully visible with row & column headings	1 mark

	A	B	C	D	E	F	G	H	I	J	K
1	***Average hours of sunshine per month***										
2		**Amarta**	**Bingchen**	**Chelsmy**							
3	January										
4	February										
5											
6	Number of days with rain in Amarta										
7	Number of days with rain in Bingchen										
8	Number of days with rain in Chelsmy										
9	Number of days with heavy rain in Amarta										
10	Average wind speed in Amarta in January										
11	Number of days with a wind speed of less than 5 knots in Amarta in January										
12											
13	***Town***	***Amarta***			***Bingchen***			***Chelsmy***			
14	**Date**	**Sunshine (hours)**	**Rainfall (mm)**	**Wind speed (knots)**	**Sunshine (hours)**	**Rainfall (mm)**	**Wind speed (knots)**	**Sunshine (hours)**	**Rainfall (mm)**	**Wind speed (knots)**	
15	1st January 2023	4.224	6.86	13	3.246	5.36	19	2.109	0.5	10	
16	2nd January 2023	0.479	0	20	3.212	0	23	4.456	0	10	
17	3rd January 2023	4.748	0	20	3.964	9.88	18	4.019	2.97	0	
18	4th January 2023	3.013	0	4	3.256	1.6	16	1.827	3.52	18	
19	5th January 2023	4.848	5.69	21	2.639	0	23	0.716	0	4	
20	6th January 2023	4.784	0	24	1.236	0	16	2.611	0	8	
21	7th January 2023	1.701	8.04	23	1.735	0	16	2.723	5.8	0	
22	8th January 2023	0.773	6.42	13	2.047	3.88	29	4.144	4.38	13	
23	9th January 2023	4.524	0	11	4.225	0	28	2.428	0	11	
24	10th January 2023	2.801	6.59	8	3.386	0	2	4.625	0	2	
25	11th January 2023	0.853	3.89	3	1.904	4.29	6	1.539	0	12	
26	12th January 2023	2.937	7.49	0	0.072	0	26	4.239	9.66	10	
27	13th January 2023	0.209	0.08	20	3.013	2.09	9	2.472	0	15	
28	14th January 2023	3.102	0	5	1.885	0	20	1.184	5.44	10	
29	15th January 2023	2.569	0	27	2.34	0	12	0.266	0	8	

Weather_ZZ999_9999.xlsx A Candidate_ZZ999_9999

	A	B	C	D	E	F	G	H	I	J
30	16th January 2023	1.744	2.76	23	3.019	3.61	2	2.679	0	13
31	17th January 2023	2.546	0	18	3.525	5.29	6	3.58	3.73	6
32	18th January 2023	3.717	0	16	2.755	7.08	27	1.707	5.07	0
33	19th January 2023	0.309	8.08	4	4.112	0	20	2.596	9.26	15
34	20th January 2023	1.768	0	5	4.289	0	25	1.95	2.82	7
35	21st January 2023	0.952	5.34	11	0.23	0	20	1.745	0	9
36	22nd January 2023	1.576	3.24	28	0.743	0	8	4.535	0.05	6
37	23rd January 2023	3.165	1.8	22	4.303	2.04	3	2.68	0	6
38	24th January 2023	0.77	0.68	30	3.614	5.52	6	0.747	0.01	10
39	25th January 2023	3.283	0	7	0.073	0.23	13	4.82	0	15
40	26th January 2023	3.061	0	0	2.372	0.05	5	3.336	4.2	7
41	27th January 2023	2.647	2.81	25	4.897	0	13	4.245	1.93	4
42	28th January 2023	3.649	1.17	17	2.173	6.9	5	3.736	7.16	18
43	29th January 2023	2.327	3.61	9	2.314	0	25	2.279	4.02	7
44	30th January 2023	2.976	0	10	1.414	0	5	2.626	8.94	3
45	31st January 2023	2.665	6.04	23	1.411	0	12	3.743	0	18
46	1st February 2023	3.648	7.12	27	1.373	0	21	2.281	8.77	19
47	2nd February 2023	3.327	5.53	18	3.598	0	16	2.389	3.55	9
48	3rd February 2023	0.779	2.28	30	1.433	2.89	13	4.455	0	16
49	4th February 2023	0.86	0	29	0.383	0	29	2.737	8.21	6
50	5th February 2023	2.218	8.53	2	0.429	0	14	1.202	7.82	15
51	6th February 2023	4.163	0	26	1.787	3.5	16	0.418	8.5	0
52	7th February 2023	3.909	0	17	3.121	0	4	4.56	8.65	19
53	8th February 2023	1.531	8.7	21	3.137	0	4	1.285	0	18
54	9th February 2023	3.785	9.43	13	2.867	6.43	15	4.999	3.32	19
55	10th February 2023	4.082	7.84	24	4.894	0	8	1.793	9.76	9
56	11th February 2023	4.927	0	16	2.224	0	1	3.809	1.03	2
57	12th February 2023	0.061	0.01	15	4.202	0	20	1.634	0	2
58	13th February 2023	3.076	4.24	2	4.541	0	29	4.03	0	19
59	14th February 2023	1.524	8.75	7	2.067	6.21	16	0.719	0	16
60	15th February 2023	4.31	0	10	0.737	0	10	1.712	6.74	15
61	16th February 2023	3.497	2.02	1	2.118	0	26	0.193	4.56	15

Weather_ZZ999_9999.xlsx A Candidate_ZZ999_9999

	A	B	C	D	E	F	G	H	I	J
62	17th February 2023	2.013	0	18	0.105	0	9	2.779	0	16
63	18th February 2023	4.467	0	7	3.829	9.65	11	2.506	0	2
64	19th February 2023	1.513	0	21	3.568	0	26	1.334	0.82	5
65	20th February 2023	4.33	7.56	2	3.692	6.23	30	0.252	0	13
66	21st February 2023	3.937	0	28	4.498	0	5	1.362	0	5
67	22nd February 2023	0.73	9.91	3	1.117	2.86	0	4.189	3.91	1
68	23rd February 2023	0.679	3.1	4	1.858	0	10	0.069	0	14
69	24th February 2023	3.204	0	18	4.46	8.67	15	2.676	2.74	6
70	25th February 2023	2.076	7.67	19	3.495	0	9	3.379	0	3
71	26th February 2023	1.387	6.86	23	3.633	0	29	3.07	4.39	4
72	27th February 2023	4.278	1.79	19	2.058	8.34	1	1.584	6.86	16
73	28th February 2023	0.474	0	16	0.117	0	27	4.948	4.51	20

Footer	File name with no path on left	1 mark
	Candidate details on right	1 mark

Weather_ZZ999_9999.xlsx A Candidate_ZZ999_9999

Formulae

B3	AVERAGE(…)	1 mark
	… B15:B45	1 mark
B4	AVERAGE(B46:B73)	1 mark
C3	AVERAGE(E15:E45)	1 mark
C4	AVERAGE(E46:E73)	1 mark
D3	AVERAGE(H15:H45)	1 mark
D4	AVERAGE(H46:H73)	1 mark
All 6	=ROUND(… ,1) for all 6 formulae	1 mark

	A	B	C	D	E
1	***Average hours of sunshine per month***				
2		**Amarta**	**Bingchen**	**Chelsmy**	
3	January	=ROUND(AVERAGE(B15:B45),1)	=ROUND(AVERAGE(E15:E45),1)	=ROUND(AVERAGE(H15:H45),1)	
4	February	=ROUND(AVERAGE(B46:B73),1)	=ROUND(AVERAGE(E46:E73),1)	=ROUND(AVERAGE(H46:H73),1)	
5					
6	Number of days with rain in Amarta			=COUNTIF(C$15:C$73,">0")	
7	Number of days with rain in Bingchen			=COUNTIF(F$15:F$73,">0")	
8	Number of days with rain in Chelsmy			=COUNTIF(I$15:I$73,">0")	
9	Number of days with heavy rain in Amarta			=COUNTIF(C15:C73,">7.5")	
10	Average wind speed in Amarta in January			=ROUNDUP(AVERAGE(D15:D45),0)	
11	Number of days with a wind speed of less than 5 knots in Amarta in January			=COUNTIF(D15:D45,"<5")	
12					
13	***Town***	***Amarta***			
14	**Date**	**Sunshine (hours)**	**Rainfall (mm)**	**Wind speed (knots)**	**Sunshine (hours)**
15	1st January 2023	4.224	6.86	13	3.246
16	2nd January 2023	0.479	0	20	3.212
17	3rd January 2023	4.748	0	20	3.964
18	4th January 2023	3.013	0	4	3.256
19	5th January 2023	4.848	5.69	21	2.639
20	6th January 2023	4.784	0	24	1.236
21	7th January 2023	1.701	8.04	23	1.735
22	8th January 2023	0.773	6.42	13	2.047
23	9th January 2023	4.524	0	11	4.225
24	10th January 2023	2.801	6.59	8	3.386
25	11th January 2023	0.853	3.89	3	1.904
26	12th January 2023	2.937	7.49	0	0.072
27	13th January 2023	0.209	0.08	20	3.013
28	14th January 2023	3.102	0	5	1.885

Weather_ZZ999_9999.xlsx & Candidate_ZZ999_9999

D6	=COUNTIF(C15:C73,">0") …	1 mark
D7	=COUNTIF(F15:F73,">0")	1 mark
D8	=COUNTIF(I15:I73,">0")	1 mark
D9	=COUNTIF(C15:C73, …)	1 mark
	… ">7.5"	1 mark
D10	=ROUNDUP(… ,0)	1 mark
	AVERAGE(D15:D45)	1 mark
D11	=COUNTIF(D15:D45,"<5")	1 mark
Formulae p/o	Landscape row & col heads fully visible	1 mark

	A	B	C	D	E
29	15th January 2023	2.569	0	27	2.34
30	16th January 2023	1.744	2.76	23	3.019
31	17th January 2023	2.546	0	18	3.525
32	18th January 2023	3.717	0	16	2.755
33	19th January 2023	0.309	8.08	4	4.112
34	20th January 2023	1.768	0	5	4.289
35	21st January 2023	0.952	5.34	11	0.23
36	22nd January 2023	1.576	3.24	28	0.743
37	23rd January 2023	3.165	1.8	22	4.303
38	24th January 2023	0.77	0.68	30	3.614
39	25th January 2023	3.283	0	7	0.075
40	26th January 2023	3.061	0	0	2.372
41	27th January 2023	2.647	2.81	25	4.897
42	28th January 2023	3.649	1.17	17	2.173
43	29th January 2023	2.327	3.61	9	2.314
44	30th January 2023	2.976	0	10	1.414
45	31st January 2023	2.665	6.04	23	1.411
46	1st February 2023	3.648	7.12	27	1.373
47	2nd February 2023	3.327	5.53	18	3.598
48	3rd February 2023	0.779	2.28	30	1.433
49	4th February 2023	0.86	0	29	0.383
50	5th February 2023	2.218	8.53	2	0.429
51	6th February 2023	4.163	0	26	1.787
52	7th February 2023	3.909	0	17	3.121
53	8th February 2023	1.531	8.7	21	3.137
54	9th February 2023	3.785	9.43	13	2.867
55	10th February 2023	4.082	7.84	24	4.894
56	11th February 2023	4.927	0	16	2.224
57	12th February 2023	0.061	0.01	15	4.202
58	13th February 2023	3.076	4.24	2	4.541
59	14th February 2023	1.524	8.75	7	2.067
60	15th February 2023	4.31	0	10	0.737

Weather_ZZ999_9999.xlsx A Candidate_ZZ999_9999

	A	B	C	D	E
61	16th February 2023	3.497	2.02	1	2.118
62	17th February 2023	2.013	0	18	0.105
63	18th February 2023	4.467	0	7	3.829
64	19th February 2023	1.513	0	21	3.568
65	20th February 2023	4.33	7.56	2	3.692
66	21st February 2023	3.937	0	28	4.498
67	22nd February 2023	0.73	9.91	3	1.117
68	23rd February 2023	0.679	3.1	4	1.858
69	24th February 2023	3.204	0	18	4.46
70	25th February 2023	2.076	7.67	19	3.495
71	26th February 2023	1.387	6.86	23	3.633
72	27th February 2023	4.278	1.79	19	2.058
73	28th February 2023	0.474	0	16	0.117

Weather_ZZ999_9999.xlsx A Candidate_ZZ999_9999

	F	G	H	I	J
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13	***Bingchen***		***Chelsmy***		
14	**Rainfall (mm)**	**Wind speed (knots)**	**Sunshine (hours)**	**Rainfall (mm)**	**Wind speed (knots)**
15	5.36	19	2.109	0.5	10
16	0	23	4.456	0	10
17	9.88	18	4.019	2.97	0
18	1.6	16	1.827	3.52	18
19	0	23	7.716	0	4
20	0	16	5.611	0	8
21	0	16	2.723	5.8	0
22	3.88	29	4.144	4.38	13
23	0	28	2.428	0	11
24	0	2	4.625	0	2
25	4.29	6	1.539	0	12
26	0	26	4.239	9.66	10
27	2.09	9	2.472	0	15
28	0	20	1.184	5.44	10

Weather_ZZ999_9999.xlsx

	F	G	H	I	J
29	0	12	6.266	0	8
30	3.61	2	6.679	0	13
31	5.29	6	3.58	3.73	6
32	7.08	27	1.707	5.07	0
33	0	20	2.596	9.26	15
34	0	25	1.95	2.82	7
35	0	20	1.745	0	9
36	0	8	4.535	0.05	6
37	2.04	3	2.68	0	6
38	5.52	6	0.747	0.01	10
39	0.23	13	4.82	0	15
40	0.05	5	3.336	4.2	7
41	0	13	4.245	1.93	4
42	6.9	5	3.736	7.16	18
43	0	25	2.279	4.02	7
44	0	5	2.626	8.94	3
45	0	12	3.743	0	18
46	0	21	2.281	8.77	19
47	0	16	2.389	3.55	9
48	2.89	13	4.455	0	16
49	0	29	2.737	8.21	6
50	0	14	1.202	7.82	15
51	3.5	16	0.418	8.5	0
52	0	4	4.56	8.65	19
53	0	4	1.285	0	18
54	6.43	15	4.999	3.32	19
55	0	8	1.793	9.76	9
56	0	1	3.809	1.03	2
57	0	20	1.634	0	2
58	0	29	4.03	0	19
59	6.21	16	0.719	0	16
60	0	10	1.712	6.74	15

Weather_ZZ999_9999.xlsx

	F	G	H	I	J
61	0	26	0.193	4.56	15
62	0	9	2.779	0	16
63	9.65	11	2.506	0	2
64	0	26	1.334	0.82	5
65	8.23	30	0.252	0	13
66	0	5	1.362	0	5
67	2.86	0	4.189	3.91	1
68	0	10	6.069	0	14
69	8.67	15	2.676	2.74	6
70	0	9	3.379	0	5
71	0	29	3.07	4.39	4
72	8.34	1	1.584	6.86	16
73	0	27	4.948	4.51	20

Weather ZZ999 9999.xlsx

Average hours of sunshine per month			
	Amarta	Bingchen	Chelsmy
January	2.5	2.6	3.4
February	2.7	2.5	2.6
Number of days with rain in Amarta			35
Number of days with rain in Bingchen			23
Number of days with rain in Chelsmy			35
Number of days with heavy rain in Amarta			10
Average wind speed in Amarta in January			15
Number of days with a wind speed of less than 5 knots in Amarta in January			5

Values 2	Cells A1:D11 only	1 mark
	Portrait orientation & single page fully vis	1 mark
	No row & column headings	1 mark

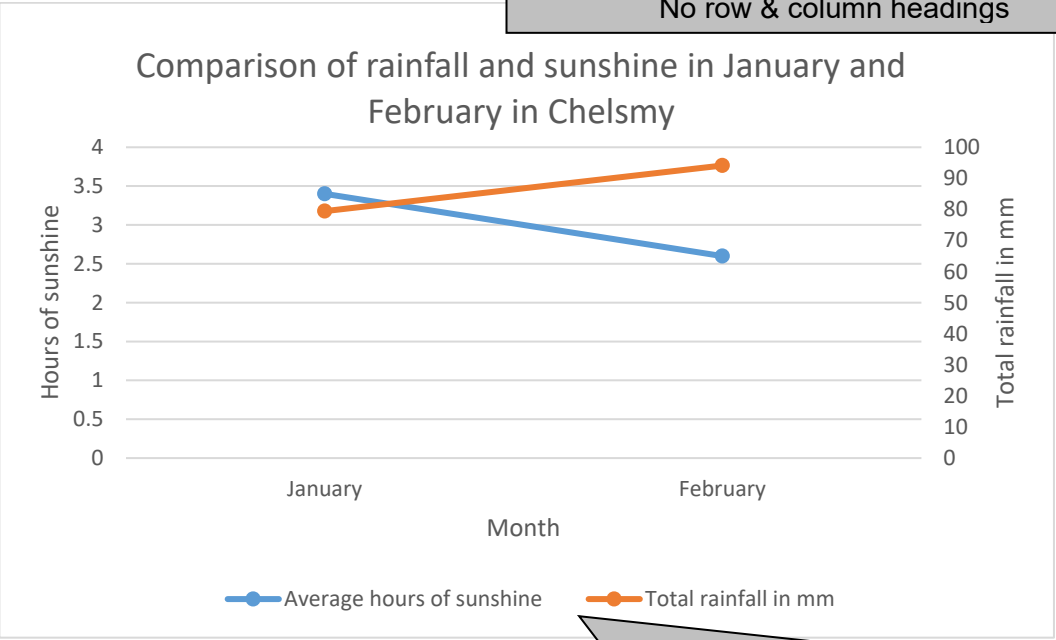

Chart	Appropriate chart type	1 mark
	Appropriate title	1 mark
	Month as category axis with axis title	1 mark
	Sunshine plotted with correct values	1 mark
	… on primary value axis with axis title	1 mark
	Rainfall plotted with correct calculated values	1 mark
	… on secondary value axis with axis title	1 mark
	… maximum scale set to 100	1 mark
	Legend relates to data & chart has no truncation/overlap	1 mark

```
h1,h2,h3,p  {font-family:Calibri,"Helvetica Neue",sans-serif}
```

CSS	All 4 correct styles selected	1 mark
	font-family:**Calibri**	1 mark
	, **"Helvetica Neue"** in speech marks	1 mark
	, sans-serif;	1 mark
	Correct CSS syntax with selector { }	1 mark

```
<head>
<title>Weather Data</title>
<meta charset="ISO-8859-1">
<meta name="author" content="TawaraWeb A Candidate">
<meta name="description" content="Weather data for the Tawara region">
<meta name="viewport" content="width=device-width, initial-scale=2.0">
<meta name="keywords" content="Tawara, weather">
<base target="_blank">
</head>
```

Head section	<head>	1 mark
	<title>**Weather Data**</title>	1 mark
	<meta … >	1 mark
	… charset= …	1 mark
	… "**ISO-8859-1**"	1 mark
	<meta name= … >	1 mark
	… "author" …	1 mark
	… content="**TawaraWeb** A Candidate"	1 mark
	<meta name= … >	1 mark
	… "description" …	1 mark
	… content="**Weather data for the Tawara region**"	1 mark
	<meta name="viewport" …>	1 mark
	… content="width=device-width …	1 mark
	…, initial-scale=2.0"	1 mark
	<meta name="keywords" … >	1 mark
	… content=" … "	1 mark
	… Tawara …	1 mark
	… comma separator	1 mark
	… weather	1 mark
	<base … >	1 mark
	target="**_blank**"	1 mark
	</head>	1 mark