



Cambridge IGCSE™

INFORMATION AND COMMUNICATION TECHNOLOGY

0417/31

Paper 3 Spreadsheets and Website Authoring

February/March 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 February/March 2023 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

This document consists of **11** printed pages.

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	Cells A1:V1 and A2:V2 merged Row deleted – First cell contained 'Batting' New row inserted at top of spreadsheet Footer – Spreadsheet edited by (space) Candidate details on right Text Tawara Cricket Club 100% accurate	5

Question	Answer	Marks
2	Row 1 Dark grey background Row 1 White text Row 1 36-point sans-serif Row 2 Light grey background Row 2 18-point sans-serif text Row 3 Centre aligned vertically Text wrapped as shown All text centre aligned horizontally except A4:A31 right aligned Column S - Narrowed to <0.5 of column T	10

Question	Answer	Marks
3	Cell U4: =COUNT(...) ... B4:R4 Replicated to U31	3

Question	Answer	Marks
4	Cell B33: =MAX (...) ... B4:B31 Cell B34: =MIN (...) ... B4:B31 B33 and B34: Replicated to column R	5
	Cell V4: Use of IF function... ... U4<5 ... displays blank ROUND(...)... ... to 1 decimal place SUM (B4:R4) / U4-T4 in brackets to ensure order of operations Replicated to V31	11

Question	Answer	Marks
6	Printout Landscape with gridlines Fully visible with row & column heads	2

Question	Answer	Marks
7	Sort: Ascending order in the range A4:V31 ... to move blanks to bottom Descending order ... in the range A4:V25	5

Question	Answer	Marks
8	All printout No gridlines Fully visible with no row and column headings	2

Question	Answer	Marks
9	TCC folder: Screenshot – file names, sizes, extensions, dimensions tcclogo_9999: in PNG format 900 wide × 180 high reflected horizontally rotated 180 degrees	5

Question	Answer	Marks
10	body: background-color: #6d040a table: margin-left:auto margin-right:auto border-collapse: collapse borders not visible h1,h2,h3,p {}: font-family: Domino , Domino Regular "Domino Regular" in speech marks , serif color: #ffff00 All using single selector Correct CSS syntax Comment with /* Cand details */ at top	13

Question	Answer	Marks
11	Row 1: tcclogo_9999 in top row Row 2: m23text.txt in left cell m23bat.jpg in right cell Row 3: Web page created by: name, centre and cand no in left cell Rows 2 and 3: Both cells set to h2 Aspect ratio of both images retained	6

Question	Answer	Marks
12	<table> table width 85%	1

Question	Answer	Marks
13	Browser view: In a browser, address bar visible, no letters visible <head> m23tcc.css attached	2

Formulae

	A	B	C	D	E	F	G	H	I	J	K	L
1	Tawara Cri											
2	First team batti											
3	Name	Match 1	Match 2	Match 3	Match 4	Match 5	Match 6	Match 7	Match 8	Match 9	Match 10	Match 11
4	Wilfred Hook	22	73		79	17		84	104	73		
5	Haunir Singh	17	82	25		85					88	
6	Ishir Singh	82	5		39		8	90		82		36
7	Ikshith Rupesingh	2		41		71					87	54
8	Ishaan Singh	0			94			79				
9	Harbajan Singh	18	18			71			67	54	10	
10	Arnav Singh	0	100		100		40		102		23	12
11	Chitaksh Ahuja	84	94	60	17		24		78			1
12	George Reddy											
13	Eeshan Dhar			66		50	14	74			17	81
14	Gitik Gangopadhyay						47	60		47		
15	Gauransh Bhatt			12		39		47				4
16	Himmat Reddy		66				59		67		93	39
17	Ivaan Guha		21	38		52		60	2			49
18	Manav Kar			20	54		25			19		
19	Krish Laghari							12		15	18	
20	Lakshay Anthony	23	47	25	54	1				41		
21	Purab Laghari			11	41				39		46	
22	Ranbir Lahiri		1					35		46	35	49
23	Ojas Ghatak			16	53	0	45		18			
24	Samar Patel	10						7		19	13	
25	Izaan Banerjee			32			33	4	29	11	0	22
26	Klaan Ghosh				0	0			6			0
27	Tejasa Das		1			13	2					
28	Tanmay Laghari	8			35		33		26			
29	Umang Dhar											
30	Shlok Babu											
31	Shaan Agarwal									2		
32												
33	Highest score in this match	=MAX(B4:B31)	=MAX(C4:C31)	=MAX(D4:D31)	=MAX(E4:E31)	=MAX(F4:F31)	=MAX(G4:G31)	=MAX(H4:H31)	=MAX(I4:I31)	=MAX(J4:J31)	=MAX(K4:K31)	=MAX(L4:L31)
34	Lowest score in this match	=MIN(B4:B31)	=MIN(C4:C31)	=MIN(D4:D31)	=MIN(E4:E31)	=MIN(F4:F31)	=MIN(G4:G31)	=MIN(H4:H31)	=MIN(I4:I31)	=MIN(J4:J31)	=MIN(K4:K31)	=MIN(L4:L31)

B33 =MAX (...) 1 mark
 ... B4:B31 mark 1 mark
 B34 =MIN (...) 1 mark
 ... B4:B31 mark 1 mark
 B33 & B34 Replicated to column R 1 mark

	M	N	O	P	Q	R	S	T	U	V
1	Cricket Club									
2	Playing statistics									
3	Match 12	Match 13	Match 14	Match 15	Match 16	Match 17	Not out	Number of matches played	Average score	
4		37			86		2	=COUNT(B4:R4)	=IF(U4<5,"",ROUND(SUM(B4:R4)/(U4-T4),1))	
5	107		38	105				=COUNT(B5:R5)	=IF(U5<5,"",ROUND(SUM(B5:R5)/(U5-T5),1))	
6	74	57			33		3	=COUNT(B6:R6)	=IF(U6<5,"",ROUND(SUM(B6:R6)/(U6-T6),1))	
7		83	71	58		59	1	=COUNT(B7:R7)	=IF(U7<5,"",ROUND(SUM(B7:R7)/(U7-T7),1))	
8								=COUNT(B8:R8)	=IF(U8<5,"",ROUND(SUM(B8:R8)/(U8-T8),1))	
9	32		100	110	54			=COUNT(B9:R9)	=IF(U9<5,"",ROUND(SUM(B9:R9)/(U9-T9),1))	
10		81				49	1	=COUNT(B10:R10)	=IF(U10<5,"",ROUND(SUM(B10:R10)/(U10-T10),1))	
11	59					12		=COUNT(B11:R11)	=IF(U11<5,"",ROUND(SUM(B11:R11)/(U11-T11),1))	
12				30				=COUNT(B12:R12)	=IF(U12<5,"",ROUND(SUM(B12:R12)/(U12-T12),1))	
13		57	29	68	44		1	=COUNT(B13:R13)	=IF(U13<5,"",ROUND(SUM(B13:R13)/(U13-T13),1))	
14	19	64		45		79		=COUNT(B14:R14)	=IF(U14<5,"",ROUND(SUM(B14:R14)/(U14-T14),1))	
15	56		101		2		1	=COUNT(B15:R15)	=IF(U15<5,"",ROUND(SUM(B15:R15)/(U15-T15),1))	
16	106				37	16		=COUNT(B16:R16)	=IF(U16<5,"",ROUND(SUM(B16:R16)/(U16-T16),1))	
17			60	42			1	=COUNT(B17:R17)	=IF(U17<5,"",ROUND(SUM(B17:R17)/(U17-T17),1))	
18		22			25			=COUNT(B18:R18)	=IF(U18<5,"",ROUND(SUM(B18:R18)/(U18-T18),1))	
19		55			5			=COUNT(B19:R19)	=IF(U19<5,"",ROUND(SUM(B19:R19)/(U19-T19),1))	
20	15	7	39	36	27		1	=COUNT(B20:R20)	=IF(U20<5,"",ROUND(SUM(B20:R20)/(U20-T20),1))	
21	49		28			3	1	=COUNT(B21:R21)	=IF(U21<5,"",ROUND(SUM(B21:R21)/(U21-T21),1))	
22		52		51		50		=COUNT(B22:R22)	=IF(U22<5,"",ROUND(SUM(B22:R22)/(U22-T22),1))	
23			27	1	7		1	=COUNT(B23:R23)	=IF(U23<5,"",ROUND(SUM(B23:R23)/(U23-T23),1))	
24		1		0		2	3	=COUNT(B24:R24)	=IF(U24<5,"",ROUND(SUM(B24:R24)/(U24-T24),1))	
25	8		35			34		=COUNT(B25:R25)	=IF(U25<5,"",ROUND(SUM(B25:R25)/(U25-T25),1))	
26					12			=COUNT(B26:R26)	=IF(U26<5,"",ROUND(SUM(B26:R26)/(U26-T26),1))	
27								=COUNT(B27:R27)	=IF(U27<5,"",ROUND(SUM(B27:R27)/(U27-T27),1))	
28	21		11					=COUNT(B28:R28)	=IF(U28<5,"",ROUND(SUM(B28:R28)/(U28-T28),1))	
29						4		=COUNT(B29:R29)	=IF(U29<5,"",ROUND(SUM(B29:R29)/(U29-T29),1))	
30						16		=COUNT(B30:R30)	=IF(U30<5,"",ROUND(SUM(B30:R30)/(U30-T30),1))	
31							1	=COUNT(B31:R31)	=IF(U31<5,"",ROUND(SUM(B31:R31)/(U31-T31),1))	
32										
33	=MAX(M4:M31)	=MAX(N4:N31)	=MAX(O4:O31)	=MAX(P4:P31)	=MAX(Q4:Q31)	=MAX(R4:R31)				
34	=MIN(M4:M31)	=MIN(N4:N31)	=MIN(O4:O31)	=MIN(P4:P31)	=MIN(Q4:Q31)	=MIN(R4:R31)				

U4	=COUNT(...)	1 mark
	... B4:R4	1 mark
	Replicated to U31	1 mark
V4	Use of IF function(...)	1 mark
	... U4<5	1 mark
	... displays blank	1 mark
	ROUND(...)	1 mark
	... to 1 decimal place	1 mark
	SUM ...	1 mark
	... (B4:R4)	1 mark
	/	1 mark
	U4-T4 ...	1 mark
	... in brackets to ensure order of operations	1 mark
	Replicated to V31	1 mark
Column S	Narrowed to <0.5 of column T	1 mark
Printout	Landscape with gridlines	1 mark
	Fully visible with row & column headings	1 mark

Tawara Cricket Club																				
First team batting statistics																				
Name	Match 1	Match 2	Match 3	Match 4	Match 5	Match 6	Match 7	Match 8	Match 9	Match 10	Match 11	Match 12	Match 13	Match 14	Match 15	Match 16	Match 17	Not out	Number of matches played	Average score
Wilfred Hook	22	73		79	17		84	104	73				37			86		2	9	82.1
Ishir Singh	92	5		39		8	90		82		36	74	57			33		3	10	73.7
Haunar Singh	17	82	25		85					88		107		38	105				8	68.4
Ikshir Rupesinga	2		41		71					87	54		83	71	58		59	1	9	65.8
Arnav Singh	0	100		100		40		102	23	12			81				49	1	9	63.4
Himmat Reddy		66				59		67	93	39		106				37	16		8	60.4
Eeshan Dhar			66		50	14	74		17	81			57	29	68	44		1	10	55.6
Harbajan Singh	18	18			71			67	54	10		32		100	110	54			10	53.4
Gitik Gangopadhyay						47	60		47			19	64		45		79		7	51.6
Chitakshi Ahuja	84	94	60	17		24		78			1	59					12		9	47.7
Ivaan Guha		21	38		52		60	2		49				60	42			1	8	46.3
Gauransh Bhatt			12		39		47			4	56			101		2		1	7	43.5
Ranbir Lahiri		1					35		46	35	49		52				50		8	39.9
Purab Laghari			11	41				39		46		49		28	51		3	1	7	36.2
Lakshay Anthony	23	47	25	54	1			41				15	7	39	36	27		1	11	31.5
Manav Kar			20	54		25			19				22			25			6	27.5
Ojas Ghatak			16	53	0	45		18						27	1	7		1	8	23.9
Tanmay Laghari	8			35		33		26				21		11					6	22.3
Krish Laghari							12		15	18			55			5			5	21
Izaan Banerjee			32			33	4	29	11	0	22	8		35			34		10	20.8
Samar Patel	10						7		19	13			1		0		2	3	7	13
Klaan Ghosh				0	0			6			0					12			5	3.6
Ishaan Singh	0			94			79												3	
George Reddy															30				1	
Tejasa Das		1			13	2													3	
Umang Dhar																	4		1	
Shlok Babu																	16		1	
Shaan Agarwal									2									1	1	
Highest score in this match	92	100	66	100	85	59	90	104	82	93	81	107	83	101	110	86	79			
Lowest score in this match	0	1	11	0	0	8	4	2	11	0	0	8	1	11	0	2	2			

Spreadsheet edited by A Candidate Z2999 9999

Row 1	New row inserted at top of spreadsheet	1 mark
	Tawara Cricket Club 100% accurate	1 mark
	Dark grey background	1 mark
	White text	1 mark
	36-point sans-serif	1 mark
	Cells A1:V1 & A2:V2 merged	1 mark
Row 2	Light grey background	1 mark
	18-point sans-serif	1 mark
Old row 3	Deleted	1 mark
Row 3	Centre aligned vertically	1 mark
	T3:V3 wrapped as shown	1 mark
	A1 and B1:R31 centre aligned horizontally	1 mark
	A4:A31 right aligned	1 mark
Sort	Ascending order ...	1 mark
	... in the range A4:V31	1 mark
	... to move blanks to bottom	1 mark
	Descending order	1 mark
	... in the range A4:V25	1 mark
All	NO gridlines	1 mark
	Fully visible with NO row & column headings	1 mark
Footer	Spreadsheet edited by (space) Cand details on right	1 mark

Evidence document

Name	Date modified	Type	Size	Dimensions
m23bat.jpg	07/06/2021 14:09	JPG File	44 KB	240 x 320
m23tcc.css	01/09/2021 13:48	Cascading Style S...	1 KB	
m23tcc.htm	22/07/2021 22:13	Opera Web Docu...	1 KB	
tcclogo_9999.png	07/06/2021 15:14	Works ...	801 KB	900 x 180

4 items

TCC folder Screenshot - file names, sizes, extensions, dimensions 1 mark
tcclogo_9999 tcclogo_9999 in PNG format 1 mark
900 wide x 180 high 1 mark

```

/* A Candidate ZZ999 9999 */

body      { background-color: #6d040a;}

table     { margin-left:auto;
           margin-right:auto;
           border-collapse: collapse;}

h1,h2,h3,p { font-family: Domino, "Domino Regular", serif;
           color:#ffff00;}
  
```

12 Col 1 100% Windows (CRLF) UTF-8

m23tcc.css	Comment /* Cand details */ at top	1 mark
body	background-color: #6d040a	1 mark
table	margin-left:auto	1 mark
	margin-right:auto	1 mark
	border-collapse: collapse	1 mark
h1,h2,h3,p	font-family: Domino	1 mark
	, Domino Regular	1 mark
	"Domino Regular" in speech marks	1 mark
	, serif	1 mark
	color: #ffff00	1 mark
	All using single selector	1 mark
	Correct CSS syntax	1 mark



Browser view	In browser, address bar visible, no letters visible	1 mark
Row 1	tcclogo_9999 in top row	1 mark
	tcclogo_9999 reflected horizontally	1 mark
	tcclogo_9999 rotated 180 degrees	1 mark
Row 2	m23text.txt in left cell	1 mark
	m23bat.jpg in right cell	1 mark
Row 3	Web page created by: name, centre and candidate no in left cell	1 mark
Row 2 & 3	Both cells set to h2	1 mark
Borders	Not visible	1 mark
	Aspect ratio of both images retained	1 mark

```

<!DOCTYPE html>
<html>
  <head>
    <link rel="stylesheet" type="text/css" href="m23tcc.css">
  </head>
  <body>
    <table style="width:85%">
      <tr>
        <td colspan="2">
        </td>
      </tr>
      <tr>
        <td><h2>The Tawara Cricket Club was founded in 1864 and has won the
district championships on 43 occasions since then. Many players have
learned the game at the TCC and have gone on to become international
superstars within the sport. The facilities are second to none. All age
groups can benefit from expert coaches who will help you to develop your
game. Membership of the club allow you to watch all home games for free and
to get reduced ticket prices for most away fixtures.</h2>
        </td>
        <td>
        </td>
      </tr>
      <tr>
        <td><h2>Web page created by: A Candidate, ZZ999, 9999</h2>
        </td>
      </tr>
    </table>
  </body>
</html>

```

head	m23tcc.css attached	1 mark
table	Table width 85%	1 mark