Cambridge IGCSE™

INFORMATION AND COMMUNICATION TECHNOLOGY **0417/32**

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.

This document consists of **10** 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	TAS folder tiger_9999 Tiger image	S/shot: filenames, sizes, extensions, dimensions Cropped to 500 × 1000 tiger_9999 in PNG format rotated through 180º horizontal reflection with all tiger visible after left and top crops foliage visible on right after right crop aspect ratio maintained	8
2	Browser view Table Row 1 Row 2 left Row 2 right Row 3 Row 4 left 2	In browser with no letters vis No borders/gridlines visible width=80% colspan=3 width: 58% colspan="2" rowspan="3" width:42% colspan="2" width:29%	10
3	Row 2 left Row 2 right Video	Video visible in correct cell Tiger image Banner & 2 lower images in correct cells Banner & 2 lower images aspect ratio maintained Appropriate alt text for all 4 still images video <…> tag used … … width="100%" Source<…> tag used … … src="j2332tiger.mp4" type="video/mp4" Appropriate error message	11
4	Row 3 3rd para	Text from source file as 2 paragraphs Web page edited by: A Cand ZZ999 9999 In style h2	3
5	Hyperlink	Anchor around elephant image href="j2332elep.htm"	2
6	Hyperlink	Anchor around monkey image href="mailto: tas@cambridge.org ?subject= Support a monkey	5
7	Browser view Stylesheet	Address bar visible j2332tas.css attached	2
8	Header B3	Spreadsheet prepared by … in centre Candidate details then on automated date then at automated time Rows 3 & 4 deleted Contains text Income	6

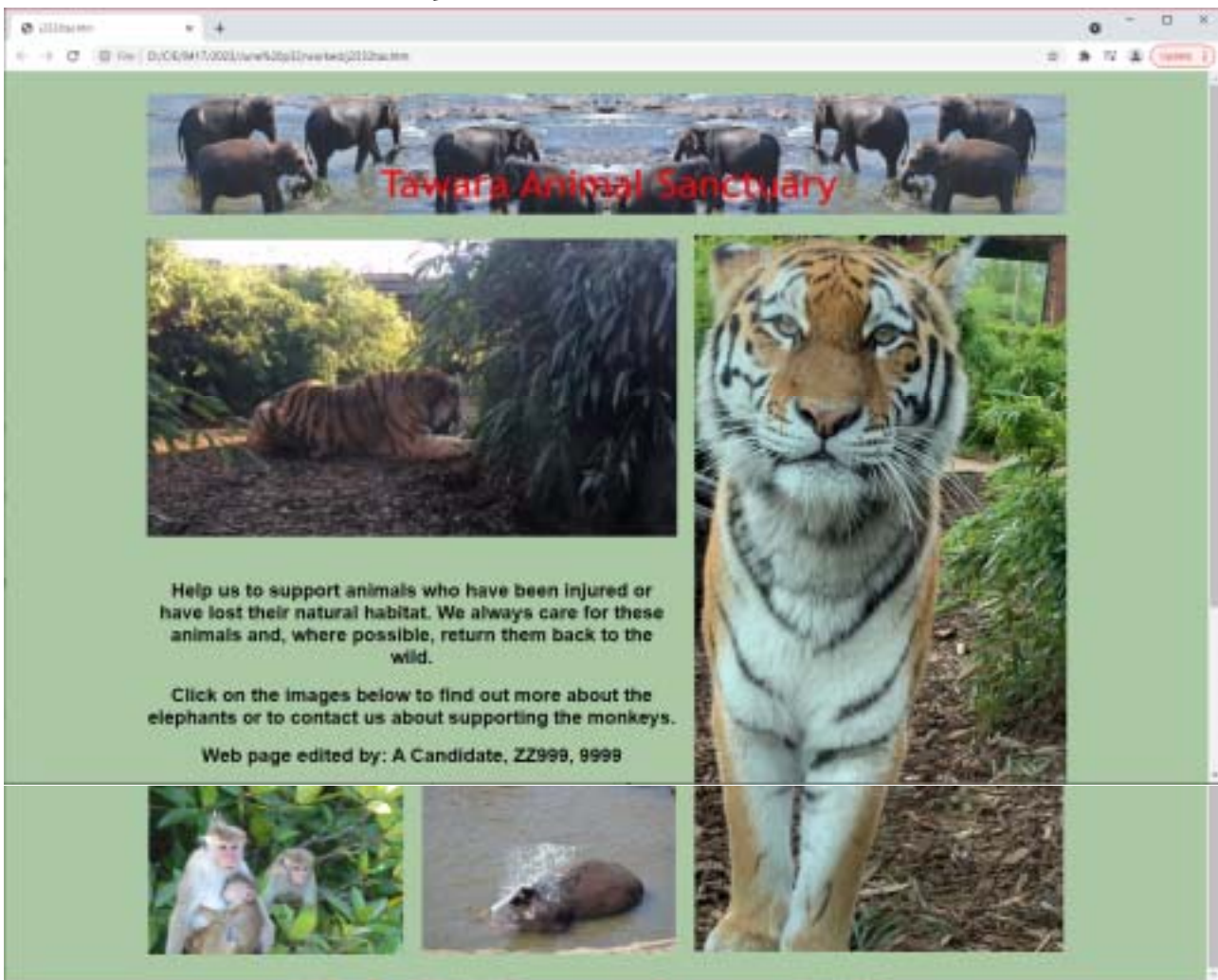| Question	Answer	Marks
9	A1:N1 Merged and centre aligned … … Large white sans-serif font black background Merged A9:A12, A13:A16 and A17:A20 Rows 7, 21 Less than 1/2 height of row 3 Grey Correct 7 cells with grey background Bold Rows 2,3,8,22 and column A Centre Row 2 and columns A and B	7
10	C12 =SUM(C9:C11) … … replicated to N12 C16 & 20 Correct formulae replicated to column N	3
11	C23 =C4-C12 C24 =C5-C16 C25 =C6-C20 C23:C25 Replication correct	4
12	Numeric data in $ with 2dp	1

13	Rules Both applied to cells C23:N25
	         Cell value >=0 …
	         … dark blue text …
	         … on light green background
	         Cell value <0 …
	         … red text on white background
		6

14	Printout Landscape row & col heads fully visible	1
15	All Fully visible with no row & column headings	1

Evidence document

Evidence 1

TAS folder	S/shot: filenames, sizes, extensions, dimensions	
		1 mark
tiger_9999	Cropped to 500 × 1000	1 mark
	tiger_9999 in PNG format	1 mark

This PC > Local Disk (D:) > CIE > 0417 > 2023 > June p32 > worked > TAS

Name	Date	Type	Size	Dimensions
j2332banner.jpg	11/04/2021 10:21	JPG File	77 KB	2000 x 262
j2332elep.htm	11/04/2021 10:53	Chrome HTML Do...	1 KB	
j2332eleph1.jpg	10/04/2014 18:11	JPG File	93 KB	800 x 600
j2332elephant.jpg	18/01/2020 06:11	JPG File	93 KB	1000 x 665
j2332monkey.jpg	15/01/2020 05:14	JPG File	80 KB	1000 x 665
j2332tas.css	11/04/2021 11:05	Cascading Style S...	1 KB	
j2332tas.txt	11/04/2021 11:01	Text Document	1 KB	
j2332tiger.jpg	10/04/2021 11:10	JPG File	1,189 KB	1062 x 1280
j2332tiger.mp4	11/04/2021 10:32	VLC media file (.m...	690 KB	
tiger_9999.png	10/04/2021 11:22	Adobe Fireworks ...	959 KB	500 x 1000

Evidence 2

In browser with no letters vis		1 mark
	address bar visible	1 mark
Table	No borders/gridlines visible	1 mark
Row 2 left	Video visible in correct cell	1 mark
Tiger image	Placed in row 2 right column	1 mark
	Rotated through 180º	1 mark
	Horizontal reflection	1 mark
	With all tiger visible after left and top crops	1 mark
	Foliage visible on right of head after right crop	1 mark
	Aspect ratio maintained	1 mark
Row 3	Text from source file as 2 paragraphs	1 mark
3rd para	**Web page edited by:** A Cand ZZ999 9999	1 mark
Banner & 2 lower images		
	In correct cells	1 mark
	With aspect ratio maintained	1 mark

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Evidence 3

```
<!DOCTYPE html>
<html>
 <head>
  <link rel="stylesheet" type="text/css" href="j2332tas.css">
 </head>
 <body>
   <table style="width:80%;">
    <tr>
     <td colspan="3">
        <img src="j2332banner.jpg" alt="Banner with images of elephants">
     </td>
    </tr>
    <tr>
     <td colspan= "2" style="width:58%;">




        <video width="100%" autoplay loop>
         <source src="j2332tiger.mp4" type="video/mp4">
          Your browser does not support this video file type.
        </video>

     </td>
     <td rowspan="3" style="width:42%;">
        <img src="tiger_9999.png" alt="Image of tiger"/>
     </td>
    </tr>
    <tr>
     <td colspan="2">



        <h2>Help us to support animals who have been injured or have lost
their natural habitat. We always care for these animals and, where
possible, return them back to the wild.</h2>
        <h2>Click on the images below to find out more about the elephants
or to contact us about supporting the monkeys.</h2>
        <h2>Web page edited by: A Candidate, ZZ999, 9999</h2>
     </td>
    </tr>
    <tr>
     <td style="width:29%;">




        <a href="mailto:tas@cambridge.org?subject=Support%20a%20monkey">
        <img src="j2332monkey.jpg" alt="Image of monkeys"/>
        </a>
     </td>
     <td style="width:29%;">
```

Callout boxes:

Label	Detail	Mark
Stylesheet	j2332tas.css attached	1 mark
Table	width=80%	1 mark
Row 1		1 mark
Row 2 left	colspan=2	1 mark
Row 2 left	width: 58%	1 mark
Row 2 left	video <…> tag used …	1 mark
	… width="100%"	1 mark
	source<…> tag used …	1 mark
	… src="j2332tiger.mp4"	1 mark
	type="video/mp4"	1 mark
	Appropriate error message	1 mark
Row 2 right	rowspan=3	1 mark
	width:42%	1 mark
Row 3	colspan=2	1 mark
Row 3	In style h2	1 mark
Row 4 left	width:29%	1 mark
Hyperlink	Anchor around monkey image	1 mark
	href="mailto: …	1 mark
	… **tas@cambridge.org...**	1 mark
	… ?subject=…	1 mark
	… **Support a monkey"**	1 mark

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```
        <a href="j2332elep.htm"><img src="j2332elephant.jpg" alt="Image of
elephant taking a bath"/></a>
        </td
     </tr>
```
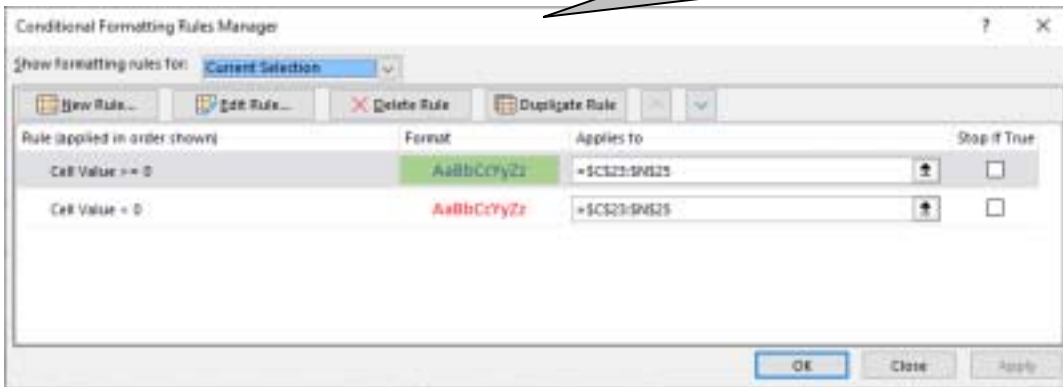
Hyperlink	Anchor around elephant image	1 mark
	href="j2332elep.htm"	1 mark
Images	Appropriate alt text for all 4 still images	1 mark

```
    </table>
 </body>
</html>
```

Evidence 4

Rules	Both applied to cells C23:N25	1 mark
	Cell value >=0 …	1 mark
	… dark blue text …	1 mark
	… on light green background	1 mark
	Cell value <0 …	1 mark
	… red text on white background	1 mark

Conditional Formatting Rules Manager

Show formatting rules for: Current Selection

New Rule… | Edit Rule… | Delete Rule | Duplicate Rule

Rule (applied in order shown)	Format	Applies to	Stop If True
Cell Value >= 0	AaBbCcYyZz	=$C$23:$N$25	☐
Cell Value < 0	AaBbCcYyZz	=$C$23:$N$25	☐

OK | Close | Apply

Values

Spreadsheet prepared by A Candidate ZZ999 9999 on 06/09/2022 at 10:59

Tawara Animal Sanctuary income and expenditure

Project	Month Income	January	February	March	April	May	June	July	August	September	October	November	December
Elephant		$3,480.38	$2,061.45	$1,893.74	$4,586.43	$2,159.94	$6,447.05	$6,541.33	$5,889.93	$6,281.20	$8,244.76	$8,249.47	$8,514.50
Monkey		$754.21	$3,421.02	$1,134.94	$2,565.61	$3,338.51	$4,056.30	$2,089.17	$3,501.97	$1,018.73	$3,804.78	$455.33	$3,126.84
Tiger		$2,952.38	$1,846.30	$1,487.65	$4,718.89	$3,897.85	$8,828.12	$8,890.99	$1,525.76	$8,812.25	$472.59	$6,400.24	$4,808.71
Project	**Expenditure**												
Elephant	Relocation	$2,716.18	$4,118.30	$3,239.28	$2,469.32	$2,973.13	$3,579.62	$3,260.53	$33.80	$2,719.38	$2,096.41	$831.69	$421.84
	Veterinary	$2,190.97	$913.83	$1,604.30	$3,595.88	$1,753.40	$934.38	$3,886.05	$3,200.70	$3,052.32	$2,874.79	$1,306.57	$1,675.18
	Food	$2,048.94	$2,815.71	$2,295.06	$2,629.31	$280.63	$1,149.43	$2,479.65	$2,007.20	$4,420.34	$542.01	$365.61	$2,438.75
	Total	$6,956.09	$7,847.84	$7,138.64	$8,694.51	$5,007.16	$5,663.43	$9,626.23	$5,241.70	$10,192.04	$5,513.21	$2,503.87	$4,535.77
Monkey	Relocation	$542.20	$629.55	$357.86	$844.56	$681.08	$251.30	$485.60	$866.48	$523.59	$698.75	$685.38	$534.26
	Veterinary	$381.80	$186.53	$240.20	$327.27	$351.50	$210.90	$284.51	$299.61	$188.59	$309.20	$123.29	$283.50
	Food	$38.87	$20.33	$39.66	$36.00	$18.63	$24.15	$57.47	$17.97	$21.86	$35.45	$7.67	$34.32
	Total	$962.87	$836.41	$637.72	$1,207.83	$1,051.21	$486.35	$827.58	$1,184.06	$734.04	$1,043.40	$816.34	$852.08
Tiger	Relocation	$1,323.71	$2,813.99	$694.47	$3,050.36	$2,387.33	$340.58	$1,893.51	$2,375.29	$2,964.81	$3,778.31	$2,764.51	$4,239.04
	Veterinary	$1,727.69	$174.66	$4,028.66	$646.21	$3,094.14	$753.63	$3,335.82	$26.20	$1,051.52	$3,373.79	$139.10	$2,872.11
	Food	$4,319.77	$2,678.66	$803.92	$2,731.27	$3,085.12	$854.12	$1,463.75	$1,310.90	$1,850.41	$1,611.76	$1,603.44	$1,308.39
	Total	$7,371.17	$5,667.31	$5,527.05	$6,427.84	$8,566.59	$1,948.53	$6,693.08	$3,712.39	$5,866.74	$6,763.86	$4,507.05	$8,419.54
Project	**Balance**												
Elephant		-$3,475.71	-$5,786.39	-$5,244.90	-$4,108.08	-$2,847.22	$783.62	-$3,084.90	$648.23	-$3,910.84	$2,731.55	$5,745.60	$3,978.73
Monkey		-$208.66	$2,584.61	$497.22	$1,357.78	$2,287.30	$3,569.95	$1,261.59	$2,317.91	$284.69	$2,561.38	-$361.01	$2,274.76
Tiger		-$4,418.79	-$3,821.01	-$4,039.40	-$1,708.95	-$2,668.74	$4,879.59	$1,997.91	-$2,186.63	$2,945.51	-$8,291.27	$1,893.19	-$3,610.83

Header	Centre aligned **Spreadsheet prepared by** [space]	1 mark
	Candidate details [space] **on** [space]	1 mark
	automated date [space] **at** [space]	1 mark
	automated time	1 mark
	Rows 3 & 4 deleted	1 mark
B3	Contains only the text **Income**	1 mark
A1:N1	Merged and centre aligned …	1 mark
	… large white sans-serif font on black background	1 mark
Merged	A9:A12, A13:A16 and A17:A20	1 mark
Rows 7, 21	< 1/2 height of row 3	1 mark
Grey	Correct 7 cells with grey background	1 mark
Bold	Rows 2, 3, 8, 22 and column A	1 mark
Centre	Row 2 and columns A & B horizontally and	
	3 merged cells vertically	1 mark
All	Numeric data in $ with 2dp	1 mark
	Fully visible with no row & column headings	1 mark

Formulae

Spreadsheet prepared by A Candidate Z2999 9999 on 06/09/2022 at 11:01

C12	=SUM(C9:C11)		1 mark
	Replicated to N12		1 mark
C16 & 20	Correct formulae replicated to column N		1 mark
C23	=C4-C12		1 mark
C24	=C5-C16		1 mark
C25	=C6-C20		1 mark
C23:C25	Replication correct to column N		1 mark
Printout	Landscape row & col heads fully visible		1 mark

Spreadsheet prepared by A Candidate Z2999 9999 on 06/09/2022 at 11:02