Cambridge Assessment
International Education

Cambridge IGCSE™

INFORMATION AND COMMUNICATION TECHNOLOGY   **04171/31**

Paper 3 Data Analysis and Website Authoring   **February/March 2022**

MARK SCHEME

Maximum Mark: 80

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 2022 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.

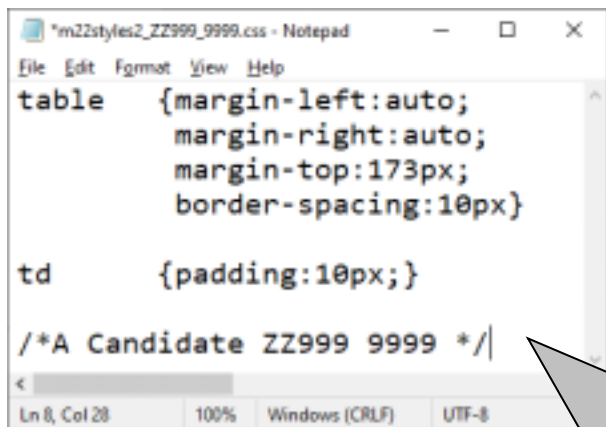| |
|---|
| GENERIC MARKING PRINCIPLE 1:

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. |

Evidence document
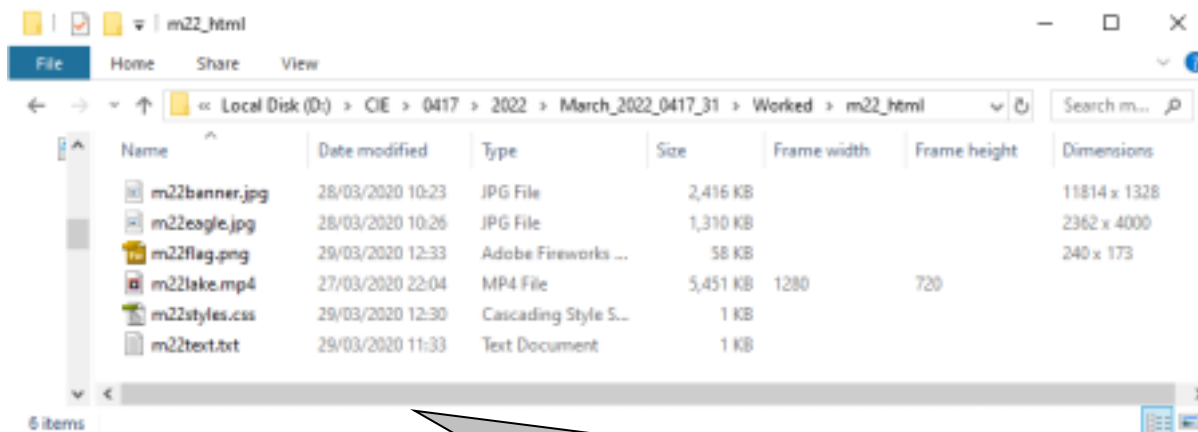
> Screen shot includes folder name, image dimensions,
> frame width, frame height, file names, file extensions & sizes   1 mark


```
table    {margin-left:auto;
          margin-right:auto;
          margin-top:173px;
          border-spacing:10px}


td       {padding:10px;}

/*A Candidate ZZ999 9999 */
```

> Stylesheet m22styles2_?????_????.css
>
> | | | |
> |---|---|---|
> | | Correct filename & type | 1 mark |
> | table { } | margin-left:auto; | 1 mark |
> | | margin-right:auto; | 1 mark |
> | | margin-top:173px; | 1 mark |
> | | border-spacing:10px | 1 mark |
> | td | {padding:10px;} | 1 mark |
> | Comments | /* Candidate details */ at end | 1 mark |

```
<!DOCTYPE html>
<html>
 <head>
  <title>Lake Naivasha Homepage</title>
  <base target="_self"/>
```

> | | |
> |---|---|
> | Title accurate and in head section | 1 mark |
> | <base target="_self"/> in head section | 1 mark |

Stylesheets attached		
m22styles.css attached in head section …		1 mark
… m22styles2 attached below m22styles		1 mark

```
 <link rel="stylesheet" type="text/css" href="m22styles.css">
 <link rel="stylesheet" type="text/css" href="m22styles2_ZZ999_9999.css">
</head>
```

Table	width=80%, no letters visible	1 mark

```
<body>
  <table style="width:80%;" border="1">
```

Row 1	height=20%	1 mark
	colspan=2	1 mark

```
  <tr>
   <td colspan="2" style=
     <img src="m22banner.jpg" alt="Banner for Lake Naivasha"
style="width:100%" />
```

Row 2	width=65%	1 mark
	video <…> tag used …	1 mark
	… width="100%"	1 mark
	source<…> tag used …	1 mark
	… src="m22lake.mp4"	1 mark
	… type="video/mp4"	1 mark
	Appropriate error message	1 mark

```
    </td>
   </tr>
   <tr>
```

```
    <td style="width:65%">
      <video width="100%" controls>
       <source src="m22lake.mp4" type="video/mp4">
        Your browser does not support this video file type.
      </video>
    </td>
```

Row 2 right	rowspan=3	1 mark
	width=35%	1 mark

```
   <td rowspan="3" style="width:35%">
     <img src="m22eagle.jpg" alt="Image of a fish eagle"
style="width:100%" />
    </td>
   </tr>
   <tr>
    <td>
```

2 images	Appropriate alt text	1 mark
	style="width:100%"	1 mark

```
      <p>Lake Naivasha is a freshwater lake that is part of the Great Rift
Valley in Kenya. It is 13 km across and is very shallow with an average
depth of only 5 metres. The lake is situated outside the town of Naivasha
in Nakuru County. The name comes from the local Maasai name Nai'posha which
means rough water as afternoon wind and sudden storms can occur. It has a
large population of hippos that emerge from Lake Naivasha every evening to
graze in the sunset.
       <a href="http://www.magicalkenya.com" target="_blank">Click
here</a> for further details.
      </p>
    </td>
   </tr>
   <tr>
    <td>
```

Hyperlink	anchor around **Click here** only	1 mark
	href="**http://www.magicalkenya.com**"	1 mark
	target="**_blank**"	1 mark

```
      <h3>Edited by: A Candidate ZZ999 9999</h3>
    </td>
   </tr>
```

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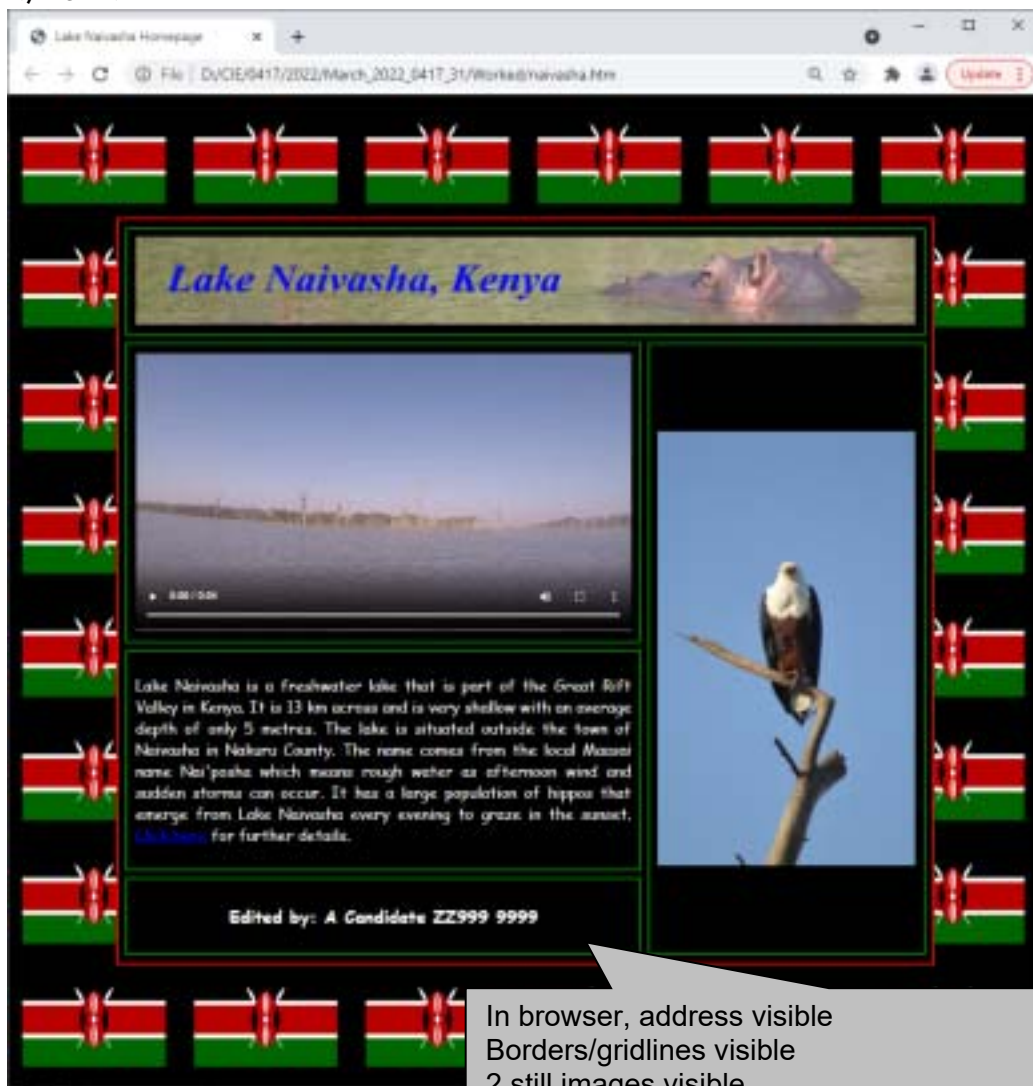

	In browser, address visible	1 mark
	Borders/gridlines visible	1 mark
	2 still images visible	1 mark
	Video visible	1 mark
	Text placed from source file	1 mark
	In style p	1 mark
	Edited by: A Candidate ZZ999 9999	1 mark
	in h3	1 mark

Created by: A Candidate, ZZ999, 9999

	A
1	Burundi
2	Democratic Republic of Congo
3	Ethiopia
4	Kenya
5	Malawi
6	Mozambique
7	Rwanda
8	Tanzania
9	Uganda
10	Zambia

Screenshot	Saved as Country_centre_candidate number	1 mark
	Row 1 deleted	1 mark
	Country column remains (others deleted)	1 mark
	No duplicate data	1 mark
Header	**Created by:** name, centre, cand no on left	1 mark
	File name with no path on right	1 mark
Sorted	Alphabetical order	1 mark
	Data fits in column & fully visible	1 mark
	Row & Col headings and gridlines visible	1 mark
	Print preview shown	1 mark

Header	Candidate details on left	1 mark

A Candidate ZZ999 9999

	B
1	████████████████████████████
3	████████████████████ Country
5	Code
6	=IF(VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A6,0)<>0,VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A6,0),"")
7	=IF(VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A7,0)<>0,VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A7,0),"")
8	=IF(VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A8,0)<>0,VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A8,0),"")
9	=IF(VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A9,0)<>0,VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A9,0),"")
10	=IF(VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A10,0)<>0,VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A10,0),"")
11	=IF(VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A11,0)<>0,VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A11,0),"")
12	=IF(VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A12,0)<>0,VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A12,0),"")
13	=IF(VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A13,0)<>0,VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A13,0),"")
14	=IF(VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A14,0)<>0,VLOOKUP($C$3,m22grid.csv!$A$2:$J$11,A14,0),"")

		Column A not visible		1 mark
Lookup		VLOOKUP(...)		1 mark
		C3		1 mark
		as an absolute reference		1 mark
		,m22grid.csv!		1 mark
		A2:J11		1 mark
		as an absolute reference		1 mark
		,A6		1 mark
		,0		1 mark
B6		=IF(… correct syntax…)		1 mark
		'*Lookup*' function		1 mark
		<>	=	1 mark
		0 or ""	0 or ""	1 mark
		,'*Lookup*' ,""	,"", '*Lookup*'	1 mark
Replication		from B6 to B14		1 mark

A Candidate ZZ999 9999

	C	D
1	Lake finder by countr	
3	Ethiopia	
4		
5	Name	Area (km2)
6	=IF($B6="","",VLOOKUP($B6,m22lake.csv!$A$2:$G$36,2,0))	=IF($B6="","",VLOOKUP($B6,m22lake.csv!$A$2:$G$36,4,0))
7	=IF($B7="","",VLOOKUP($B7,m22lake.csv!$A$2:$G$36,2,0))	=IF($B7="","",VLOOKUP($B7,m22lake.csv!$A$2:$G$36,4,0))
8	=IF($B8="","",VLOOKUP($B8,m22lake.csv!$A$2:$G$36,2,0))	=IF($B8="","",VLOOKUP($B8,m22lake.csv!$A$2:$G$36,4,0))
9	=IF($B9="","",VLOOKUP($B9,m22lake.csv!$A$2:$G$36,2,0))	=IF($B9="","",VLOOKUP($B9,m22lake.csv!$A$2:$G$36,4,0))
10	=IF($B10="","",VLOOKUP($B10,m22lake.csv!$A$2:$G$36,2,0))	=IF($B10="","",VLOOKUP($B10,m22lake.csv!$A$2:$G$36,4,0))
11	=IF($B11="","",VLOOKUP($B11,m22lake.csv!$A$2:$G$36,2,0))	=IF($B11="","",VLOOKUP($B11,m22lake.csv!$A$2:$G$36,4,0))
12	=IF($B12="","",VLOOKUP($B12,m22lake.csv!$A$2:$G$36,2,0))	=IF($B12="","",VLOOKUP($B12,m22lake.csv!$A$2:$G$36,4,0))
13	=IF($B13="","",VLOOKUP($B13,m22lake.csv!$A$2:$G$36,2,0))	=IF($B13="","",VLOOKUP($B13,m22lake.csv!$A$2:$G$36,4,0))
14	=IF($B14="","",VLOOKUP($B14,m22lake.csv!$A$2:$G$36,2,0))	=IF($B14="","",VLOOKUP($B14,m22lake.csv!$A$2:$G$36,4,0))

```
Name
C6      =IF($B6="","", … )                 1 mark
        VLOOKUP($B6, … )                   1 mark
        m22lake.csv!$A$2:$G$36             1 mark
        ,2,0                               1 mark
```

```
Area
D6      =IF($B6="","",VLOOKUP($B6,m22lake.csv!$A$2:$G$36,4,0))      1 mark
```

PUBLISHED

A Candidate ZZ999 9999

	E	F
1	**y**	
2		
3		
4		
5	Elevation (m)	Depth (max)
6	=IF($B6="","",VLOOKUP($B6,m22lake.csv!$A$2:$G$36,5,0))	=IF($B6="","",VLOOKUP($B6,m22lake.csv!$A$2:$G$36,6,0))
7	=IF($B7="","",VLOOKUP($B7,m22lake.csv!$A$2:$G$36,5,0))	=IF($B7="","",VLOOKUP($B7,m22lake.csv!$A$2:$G$36,6,0))
8	=IF($B8="","",VLOOKUP($B8,m22lake.csv!$A$2:$G$36,5,0))	=IF($B8="","",VLOOKUP($B8,m22lake.csv!$A$2:$G$36,6,0))
9	=IF($B9="","",VLOOKUP($B9,m22lake.csv!$A$2:$G$36,5,0))	=IF($B9="","",VLOOKUP($B9,m22lake.csv!$A$2:$G$36,6,0))
10	=IF($B10="","",VLOOKUP($B10,m22lake.csv!$A$2:$G$36,5,0))	=IF($B10="","",VLOOKUP($B10,m22lake.csv!$A$2:$G$36,6,0))
11	=IF($B11="","",VLOOKUP($B11,m22lake.csv!$A$2:$G$36,5,0))	=IF($B11="","",VLOOKUP($B11,m22lake.csv!$A$2:$G$36,6,0))
12	=IF($B12="","",VLOOKUP($B12,m22lake.csv!$A$2:$G$36,5,0))	=IF($B12="","",VLOOKUP($B12,m22lake.csv!$A$2:$G$36,6,0))
13	=IF($B13="","",VLOOKUP($B13,m22lake.csv!$A$2:$G$36,5,0))	=IF($B13="","",VLOOKUP($B13,m22lake.csv!$A$2:$G$36,6,0))
14	=IF($B14="","",VLOOKUP($B14,m22lake.csv!$A$2:$G$36,5,0))	=IF($B14="","",VLOOKUP($B14,m22lake.csv!$A$2:$G$36,6,0))

A Candidate ZZ999 9999

	G
1	████████████████
2	
3	
4	
5	Water
6	=IF($B6="","",VLOOKUP($B6,m22lake.csv!$A$2:$G$36,7,0))
7	=IF($B7="","",VLOOKUP($B7,m22lake.csv!$A$2:$G$36,7,0))
8	=IF($B8="","",VLOOKUP($B8,m22lake.csv!$A$2:$G$36,7,0))
9	=IF($B9="","",VLOOKUP($B9,m22lake.csv!$A$2:$G$36,7,0))
10	=IF($B10="","",VLOOKUP($B10,m22lake.csv!$A$2:$G$36,7,0))
11	=IF($B11="","",VLOOKUP($B11,m22lake.csv!$A$2:$G$36,7,0))
12	=IF($B12="","",VLOOKUP($B12,m22lake.csv!$A$2:$G$36,7,0))
13	=IF($B13="","",VLOOKUP($B13,m22lake.csv!$A$2:$G$36,7,0))
14	=IF($B14="","",VLOOKUP($B14,m22lake.csv!$A$2:$G$36,7,0))

E6,F6,G6 ,5,0) ,6,0) ,7,0)		1 mark
Replication Right 5 columns replicated		1 mark
Printout Landscape, row and column heads & fully visible		1 mark

A Candidate ZZ999 9999

Lake finder by country

Country	Kenya

Code	Name	Area (km2)	Elevation (m)	Depth (max)	Water
L1	Lake Bogoria	34	990	10	Salt
L2	Lake Nakuru	45	1760	2	Fresh
L3	Lake Elementaita	18	1670	1.5	Salt
L4	Lake Victoria	59947	1135	83	Fresh
L30	Lake Turkana	6405	360	125	Salt
L32	Lake Logipi	15	577	5	Salt
L33	Lake Boringo	168	1000	10	Salt
L34	Lake Naivasha	139	1884	30	Fresh
L35	Lake Magadi	100	579	1	Salt

Formatting	Cells B1:G1 and C3:G3 merged	1 mark
	Rows 2 and 4 smaller in height than row 5	1 mark
	Row 1 – Large white text on black background	1 mark
	All text sans-serif	1 mark
	Cell borders on C3:G3 and B5:G14 only	1 mark
Values	Data entered for **Kenya** with correct results	1 mark
	B1:G14 as single page, fully visible, no row and col heads	1 mark

A Candidate ZZ999 9999

Lake finder by country

| Country | Tanzania | | | | |

Code	Name	Area (km2)	Elevation (m)	Depth (max)	Water
L5	Lake Victoria	59947	1135	83	Fresh
L9	Lake Tanganyika	32900	773	1470	Fresh
L15	Lake Malawi	29600	500	706	Fresh

Values — Print as above for **Tanzania** with correct results   1 mark

A Candidate ZZ999 9999

Lake finder by country

| Country | Burundi | | | | |

Code	Name	Area (km2)	Elevation (m)	Depth (max)	Water
L7	Lake Victoria	59947	1135	83	Fresh
L12	Lake Tanganyika	32900	773	1470	Fresh

Values — Print as above for **Burundi** with correct results   1 mark