Cambridge IGCSE™

INFORMATION AND COMMUNICATION TECHNOLOGY **0417/03**

Paper 3 Spreadsheets and Website Authoring **For examination from 2023**

MARK SCHEME

Maximum Mark: 70

Specimen

This document has **14** pages.

[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.

Task 2 – Web Page

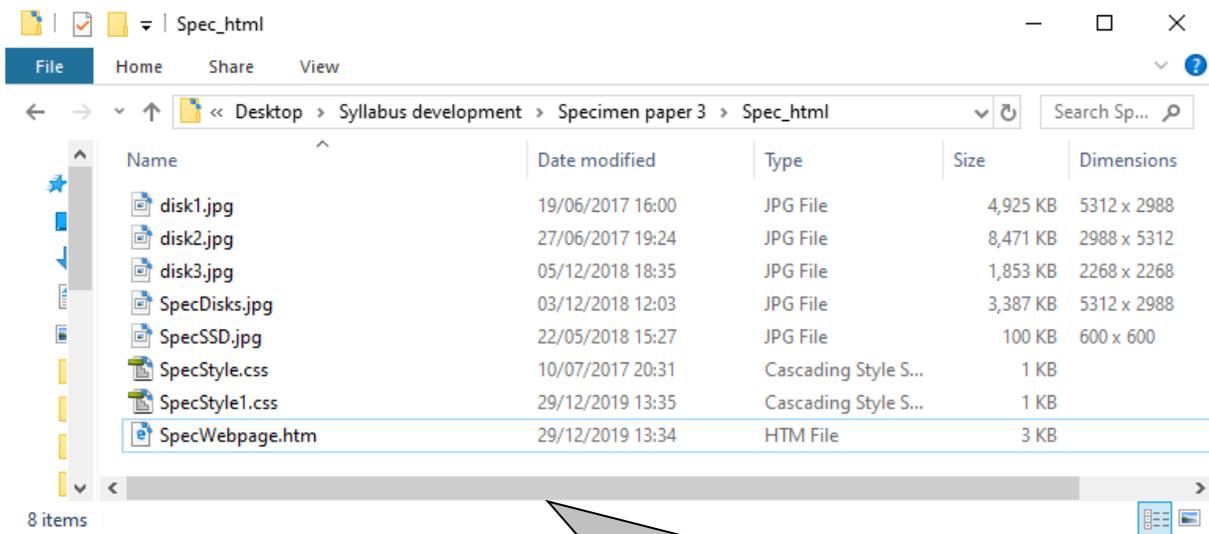| Question	Answer	Marks
	Please see below for allocation of marks and examples of graphics.	
1	**Row 2 – Right cell: Image of SSD** … reflected (flipped) horizontally (1) … rotated 90 degree clockwise (1) … cropped square with red background (1) SpecSSD.jpg set to 600 × 600 (1)	**4**
2	Screen shot includes folder name, image dimensions, file names, extensions & sizes	**1**

Question	Answer	Marks
3	**Stylesheet SpecStyle9999.css** Correct file name & type (1) table { } width:90% (1) border-collapse:separate (1) table,td { } border:2 px (1) solid (1) #808000 (1) These 3 elements in joint section (1) td { } padding-top:8 px; (1) padding-bottom:6 px; (1) padding-left:20 px; (1) padding-right:20 px (1) h1, h2, h3 { } color: #ffff00 (1) font-family: Times New Roman (1) In speech marks (1) ,Times (1) ,serif (1) These 5 elements in joint section (1) h1 { } font-size:48 pt (1) text-align:right (1) h2 { } font-size:24 pt (1) h3 { } font-size:18 pt (1) .cyan color:#00ffff (1) Comment at end /* Candidate details */ (1)	23
4	Stylesheets attached SpecStyle1 attached in head section … (1) … SpecStyle9999 attached below SpecStyle1 (1) File names with no path	**2**
5	Class cyan applied to correct text only … (1) … using a span tag (1)	**2**

Question	Answer	Marks

6	Correct web development layer selected (1)
	In <head> section (1)
	<meta> tags used… (1)
	… with charset attribute… (1)
	  … defined as **"UTF-8"** (1)
	… with name attribute… (1)
	  … set to **"author"** … (1)
	    … content defined as candidate name (1)
	… with name attribute set to **"keywords"** … (1)
	    … content set to "Tawara,TDS,DVD,SSD" (1)
		10

7	Replace **Place image here** with SpecSSD.jpg (1) … with appropriate alt text (1)	**2**
Total		**44**

Task 3 – Spreadsheet

Question	Answer	Marks
	Please see below for allocation of marks and examples of graphics.	
8	**Values printout** **Row 1** Cells A1 to F1 merged & centre aligned (1) Large black sans-serif font (1)	**2**
9	**Mark from any printout** **Footer** Candidate details on left	**1**
10	**Model** =IF( ) used (1) Condition like A9="" (1) ,"" (1) VLOOKUP ( ) (1) Cell reference $A9 (1) External file SpecSSD.csv (1) Correct absolute range used (1) Correct return column ,4 (1) ,0 or ,False (1) **Capacity, Unit Price** =IF($A9="" ,"", ……) (1) **Capacity** VLOOKUP($A9,SpecSSD.csv!$A$2:$D$106,3,FALSE) (1) **Unit price** VLOOKUP($A9,SpecSSD.csv!$A$2:$D$106,2,FALSE) (1)	**12**
11	**Price** =IF($B9<>"", ,"") (1) B9*E9 (1)	**2**
12	**Replication** 4 columns replicated	**1**
13	**Total** =SUM(F9:F19)	**1**
14	**Format** Number of items and capacity columns as integer & currency in Euros with 2 dp	**1**
15	Landscape & fully visible (1) Row & column headings & gridlines visible (1)	**2**
16	Address and product data entry 100% accurate (1) Zip code left aligned (1)	**2**
17	**Format** Print area single page & fully visible (1) No row/column headings or gridlines (1)	**2**
Total		**26**

Evidence document

Screen shot includes folder name, image
dimensions, file names, extensions & sizes   1 mark
SpecSSD.jpg set to 600 × 600   1 mark

```
📄 SpecStyle9999.css - Notepad                               —    □    ×

File  Edit  Format  View  Help

table         {width:90%;
               border-collapse:separate}


table,td      {border:2px solid #808000}


td            {padding-top:8px;
               padding-bottom:6px;
               padding-left:20px;
               padding-right:20px}


h1,h2,h3      {color: #ffff00;
               font-family:"Times New Roman",Times,serif}


h1            {font-size:48pt;
               text-align:right}


h2            {font-size:24pt}


h3            {font-size:18pt}


.cyan         {color:#00ffff}


/* A Candidate ZZ999 9999 */
```

Stylesheet SpecStyle9999.css		
	Correct file name & type	1 mark
table { }	width:90%	1 mark
	border-collapse:separate	1 mark
table,td { }	border:2 px	1 mark
	solid	1 mark
	#808000	1 mark
These 3 elements in joint section		1 mark
td { }	padding-top:8 px;	1 mark
	padding-bottom:6 px;	1 mark
	padding-left:20 px;	1 mark
	padding-right:20 px	1 mark
h1, h2, h3 { }	color: #ffff00	1 mark
	font-family: Times New Roman	1 mark
	In speech marks	1 mark
	,Times	1 mark
	,serif	1 mark
These 5 elements in joint section		1 mark
h1 { }	font-size:48 pt	1 mark
	text-align:right	1 mark
h2 { }	font-size:24 pt	1 mark
h3 { }	font-size:18 pt	1 mark
.cyan	color:#00ffff	1 mark
Comment at end	/* Candidate details */	1 mark

Row 2 - Right cell: Image of SSD
… reflected (flipped) horizontally   1 mark
… rotated 90 degree clockwise   1 mark
… cropped square with red background   1 mark

Stylesheets attached
SpecStyle1 attached in head section …   1 mark
… SpecStyle9999 attached below SpecStyle1   1 mark
File names as shown with no path

```
<!DOCTYPE html>
<html>
 <head>
  <link rel="stylesheet" type="text/css"
href="SpecStyle1.css">
  <link rel="stylesheet" type="text/css"
href="SpecStyle9999.css">
```

Correct web development layer – html selected   1 mark
In <head> section   1 mark
<meta> tags used…   1 mark
… with charset attribute…   1 mark
   … defined as **"UTF-8"**   1 mark
… with name attribute…   1 mark
   … set to **"author"** …   1 mark
     … content defined as candidate name   1 mark
… with name attribute set to **"keywords"** …   1 mark
     … content set to "Tawara,TDS,DVD,SSD"   1 mark

```
<meta charset="UTF-8">
<meta name="author" content="Candidate name">
<meta name="keywords" content="Tawara,TDS,DVD,SSD">
</head>
  <body>
    <table border="1" width=1400>
      <tr height=80>
        <td colspan=3>
```

> Class cyan applied to correct text only …   1 mark
> … using a span tag   1 mark

```
        <h1>SSDs from <span class="cyan">Tawara-Digital-
Storage</span></h1>
        </td>
      </tr>
      <tr height=600>
        <td colspan=2 width=800>
        <h2>A Solid-State Drive is more frequently referred
to as an SSD. It is a form of mass storage device similar to
a hard disk drive (HDD). It supports reading and writing data
(unlike some optical drives) and is non-volatile (maintains
stored data when the machine is turned off). It currently uses
NAND based flash memory.</h2>
        <h2>SSDs have much quicker read and write speeds
than HDDs. They have no moving parts. With a HDD the disk has
to "spin up" from its sleep state and they don't need to move
a drive head to different parts of the drive to access data.
As HDDs are used their read speed performance diminishes as
data is often fragmented on the drives. This means a single
file may be located in many different places on the disk and
the read head has to move to each location in order to
retrieve the data. As SSDs are not magnetic they do not suffer
data loss if strong magnetic fields are close to the
drive.</h2>
        <h2>Despite all these positives, SSDs are much more
expensive than HDDs, in some cases more than 10 times as
expensive per gigabyte. This means they often have smaller
capacities than HDDs. They also have a limited number of write
cycles, which may cause their performance to degrade over
time. As this technology is relatively new no-one has reliable
degradation data, but newer SSDs have improved reliability and
should last several years before any reduction in performance
can be seen. It will not be long before SSDs replace HDDs and
the HDDs only location will be in museums alongside floppy
disk drives.</h2>
        </td>
        <td width=600>
```

> Replace **Place image here** with SpecSSD.jpg   1 mark
> … with appropriate alt text   1 mark

```
        <img src="SpecSSD.jpg" alt="Image of a solid-state
drive">
        </td>
      </tr>
      <tr height=80>
       <td width=400>
         <h3>Homepage</h3>
       </td>
       <td width=400>
         <h3><a
href="mailto:TDS@cambridgeinternational.org?subject=SSD%20enqu
iry">Contact us</a></h3>
```

```
    </td>
    <td>
      <h3>Web page creation by Hothouse Design</h3>
      <h3>Last edited by A Candidate, ZZ999, 9999</h3>
    </td>
   </tr>
  </table>
 </body>
</html>
```

Model

	=IF( ) used	1 mark
	Condition like A9=""	1 mark
	""	1 mark
	,	1 mark
	VLOOKUP ( )	1 mark
	Cell reference $A9	1 mark
	External file SpecSSD.csv	1 mark
	Correct absolute range used	1 mark
	Correct return column ,4	1 mark
	,0 or ,False	1 mark

Ta...

	A	B	C
1			
2	To:		
3	Tawara Technology Solutions		
4	32 Acacia Avenue		
5	Tawara		
6	45673		
7			
8	**Product code**	**Number of items**	**Model**
9	SSD18	1	=IF($A9="","",VLOOKUP(A9,SpecSSD.csv!$A$2:$D$106,4,0))
10	SSD34	10	=IF($A10="","",VLOOKUP(A10,SpecSSD.csv!$A$2:$D$106,4,0))
11			=IF($A11="","",VLOOKUP(A11,SpecSSD.csv!$A$2:$D$106,4,0))
12			=IF($A12="","",VLOOKUP(A12,SpecSSD.csv!$A$2:$D$106,4,0))
13			=IF($A13="","",VLOOKUP(A13,SpecSSD.csv!$A$2:$D$106,4,0))
14			=IF($A14="","",VLOOKUP(A14,SpecSSD.csv!$A$2:$D$106,4,0))
15			=IF($A15="","",VLOOKUP(A15,SpecSSD.csv!$A$2:$D$106,4,0))
16			=IF($A16="","",VLOOKUP(A16,SpecSSD.csv!$A$2:$D$106,4,0))
17			=IF($A17="","",VLOOKUP(A17,SpecSSD.csv!$A$2:$D$106,4,0))
18			=IF($A18="","",VLOOKUP(A18,SpecSSD.csv!$A$2:$D$106,4,0))
19			=IF($A19="","",VLOOKUP(A19,SpecSSD.csv!$A$2:$D$106,4,0))
20			
21			

Mark from any printout
Footer   Candidate details on left   1 mark

A Candidate ZZ999 9999

Annotations (Column D):

Capacity, Unit Price
=IF($A9="" , "" , ……)   1 mark

Capacity
VLOOKUP($A9,SpecSSD.csv!$A$2:$D$106,3,FALSE)   1 mark

Annotations (Column E):

Unit price
VLOOKUP($A9,SpecSSD.csv!$A$2:$D$106,2,FALSE)   1 mark

Annotations (Column F):

Price
=IF($B9<>"" , B9*E9   1 mark
, "")   1 mark

Total
=SUM(F9:F19)   1 mark

	D — Capacity	E — Unit price	F — Price
8	Capacity	Unit price	Price
9	=IF($A9="","",VLOOKUP(A9,SpecSSD.csv!$A$2:$D$106,3,0))	=IF($A9="","",VLOOKUP(A9,SpecSSD.csv!$A$2:$D$106,2,0))	=IF($B9="","",B9*E9)
10	=IF($A10="","",VLOOKUP(A10,SpecSSD.csv!$A$2:$D$106,3,0))	=IF($A10="","",VLOOKUP(A10,SpecSSD.csv!$A$2:$D$106,2,0))	=IF($B10="","",B10*E10)
11	=IF($A11="","",VLOOKUP(A11,SpecSSD.csv!$A$2:$D$106,3,0))	=IF($A11="","",VLOOKUP(A11,SpecSSD.csv!$A$2:$D$106,2,0))	=IF($B11="","",B11*E11)
12	=IF($A12="","",VLOOKUP(A12,SpecSSD.csv!$A$2:$D$106,3,0))	=IF($A12="","",VLOOKUP(A12,SpecSSD.csv!$A$2:$D$106,2,0))	=IF($B12="","",B12*E12)
13	=IF($A13="","",VLOOKUP(A13,SpecSSD.csv!$A$2:$D$106,3,0))	=IF($A13="","",VLOOKUP(A13,SpecSSD.csv!$A$2:$D$106,2,0))	=IF($B13="","",B13*E13)
14	=IF($A14="","",VLOOKUP(A14,SpecSSD.csv!$A$2:$D$106,3,0))	=IF($A14="","",VLOOKUP(A14,SpecSSD.csv!$A$2:$D$106,2,0))	=IF($B14="","",B14*E14)
15	=IF($A15="","",VLOOKUP(A15,SpecSSD.csv!$A$2:$D$106,3,0))	=IF($A15="","",VLOOKUP(A15,SpecSSD.csv!$A$2:$D$106,2,0))	=IF($B15="","",B15*E15)
16	=IF($A16="","",VLOOKUP(A16,SpecSSD.csv!$A$2:$D$106,3,0))	=IF($A16="","",VLOOKUP(A16,SpecSSD.csv!$A$2:$D$106,2,0))	=IF($B16="","",B16*E16)
17	=IF($A17="","",VLOOKUP(A17,SpecSSD.csv!$A$2:$D$106,3,0))	=IF($A17="","",VLOOKUP(A17,SpecSSD.csv!$A$2:$D$106,2,0))	=IF($B17="","",B17*E17)
18	=IF($A18="","",VLOOKUP(A18,SpecSSD.csv!$A$2:$D$106,3,0))	=IF($A18="","",VLOOKUP(A18,SpecSSD.csv!$A$2:$D$106,2,0))	=IF($B18="","",B18*E18)
19	=IF($A19="","",VLOOKUP(A19,SpecSSD.csv!$A$2:$D$106,3,0))	=IF($A19="","",VLOOKUP(A19,SpecSSD.csv!$A$2:$D$106,2,0))	=IF($B19="","",B19*E19)
20			
21	Total		=IF(F9="","",SUM(F9:F19))

Replication   4 columns replicated   1 mark
Landscape & fully visible   1 mark
Row & column headings & gridlines visible   1 mark

A Candidate ZZ999 9999

Tawara-Digital-Storage Invoice

To:
Tawara Technology Solutions
32 Acacia Avenue
Tawara
45673

Number of items

Product code	Number of items	Model	Capacity	Unit price	Price
SSD18	1	Samsung 840 Evo	250	€70.00	€70.00
SSD34	10	OZT Vertex 4	256	€181.00	€1,810.00

Total   €1,880.00

A Candidate ZZ999 9999

Annotation boxes (mark scheme):

Values printout
Row 1
Cells A1 to F1 merged & centre aligned   1 mark
Large black sans-serif font   1 mark

Address and product data entry 100% accurate   1 mark
Zip code left aligned   1 mark

Format
Number of items and capacity columns as integer & currency in Euros with 2dp   1 mark
Print area single page & fully visible   1 mark
No row/column headings or gridlines   1 mark