Cambridge IGCSE

INFORMATION AND COMMUNICATION TECHNOLOGY   **0417/03**

Paper 3 Practical Test B   **October/November 2017**

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.

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This document consists of **13** printed pages.

Header	**Cruise ship analysis** – left aligned and	
	Name, Centre, cand nos - right aligned	1 mark
Footer	**Last edited on … at …**- centre aligned	1 mark
	automated date & time	1 mark

Destination	VLOOKUP used	1 mark
	Correct relative reference – A4	1 mark
	External file 173location.csv	1 mark
	Correct range $A$2:$B$214	1 mark
	Correct return column - 2	1 mark
	,FALSE	1 mark

Cruise ship analysis

	A	B	C	D	E	F		H
1					Cruise Passenge...		2015 & 2014	
2						2014		
3	Dcode	Destination	...od	Months	...tors for this period	Average visitors/month	Visitors for this period	% change
4	Ant	=VLOOKUP(A4,'173location.csv'!$A$2:$B$214,2,FALSE)	Jan-Mar	3	320401	=INT(E4/D4)	270262	=(E4-G4)/G4
5	Aru	=VLOOKUP(A5,'173location.csv'!$A$2:$B$214,2,FALSE)	Jan-Mar	3	2149...	=INT(E5/D5)	258408	=(E5-...)/G5
6					...58623	=INT(E6/D6)	1377043	=(E6...
7					146520	=INT(E7/D7)	161811	=(E7...
8					18718	=INT(E8/D8)	25433	=(E...
9					447250	=INT(E9/D9)	426406	=(...
10	Bri	=VLOOKUP(A10,'173location.csv'!$A$2:$B$214,2,FALSE)	Jan-Mar	3	211543	=INT(E10/D10)	243453	=(...
11	Cay	=VLOOKUP(A11,'173location.csv'!$A$2:$B$214,2,FALSE)	Jan-Apr	4	719298	=INT(E11/D11...		
12	Coz	=VLOOKUP(A12,'173location.csv'!$A$2:$B$214,2,FALSE)	Jan-Apr	4	1455974	=INT(E12/D12...		
13	Cur	=VLOOKUP(A13,'173location.csv'!$A$2:$B$214,2,FALSE)	Jan-Apr	4	264521	=INT(E13/D13...		
14	Dom	=VLOOKUP(A14,'173location.csv'!$A$2:$B$214,2,FALSE)	Jan-Mar	3	148635	=INT(E14/D14...		
15	Dre	=VLOOKUP(A15,'173location.csv'!$A$2:$B$214,2,FALSE)	Jan-Apr	4	238811	=INT(E15/D15)	259079	=(E15-G15)/G15
16	Grn	=VLOOKUP(A16,'173location.csv'!$A$2:$B$214,2,FALSE)	Jan-Mar	3	133072	=INT(E16/D16)	125461	=(E16-G16)/G16
17	Jam	=VLOOKUP(A17,'173location.csv'!$A$2:$B$214,2,FALSE)	Jan-Apr	4	654407	=INT(E17/D17)	588691	=(E17-G17)/G17
18	Mrq	=VLOOKUP(A18,'173location.csv'!$A$2:$B$214,2,FALSE)	Jan-Apr	4	167610	=INT(E18/D18)	114285	=(E18-G18)/G18
19	Pue	=VLOOKUP(A19,'173location.csv'!$A$2:$B$214,2,FALSE)	Jan-Mar	3	526428	=INT(E19/D19)	417011	=(E19-G19)/G19
20	Slu	=VLOOKUP(A20,'173location.csv'!$A$2:$B$214,2,FALSE)	Jan-Apr	4	351717	=INT(E20/D20)	322973	=(E20-G20)/G20
21	Stv	=VLOOKUP(A21,'173location.csv'!$A$2:$B$214,2,FALSE)	Jan-Apr	4	52219	=INT(E21/D21...		
22	UVI	=VLOOKUP(A22,'173location.csv'!$A$2:$B$214,2,FALSE)	Jan-Apr	4	842988	=INT(E22/D22...		

F4	E4	1 mark
	/D4	1 mark
	INT(…) or ROUNDDOWN(…,0)	1 mark

% change	Correct cells identified – E4 and G4	1 mark
	(E4-G4) includes brackets	1 mark
	/G4	1 mark

Printout	Landscape, fully visible	1 mark
	Row & Column headings displayed	1 mark
Replication	All 3 formulae	1 mark

Last edited on 17/10/2017 at 09:54

Top row	Merge cells A1 to H1	1 mark
	Right aligned with a red, 20 point, sans-serif font	1 mark
	Pale blue background	1 mark

Cruise ship analysis   A Candidate ZZ999 9999

Cruise Passenger Arrivals - 2015 & 2014

Dcode	Destination	Period	Months	2015 Visitors for this period	Average /	2014 Visitors for this period	% change
Ant	Antigua and Barbuda	Jan-Mar	3	320		270,262	18.6%
Aru	Aruba	Jan-Mar	3			258,408	-16.8%
Bah	Bahamas	Jan-Mar					
Bar	Barbados	Jan-Feb					
Blz	Belize	Jan-Apr					
Ber	Bermuda	Jan-Apr	4	18,718	4,679	25,433	-26.4%
Bri	British Virgin Islands	Jan-Mar	3	211,543	70,514	243,453	-13.1%
Cay	Cayman Islands	Jan-Apr	4	719,298	179,824	677,663	6.1%
Coz	Cozumel (Mexico)	Jan-Apr	4	1,455,974	363,993	1,357,701	7.2%
Cur	Curacao	Jan-Apr	4	264,521	66,130	295,373	-10.4%
Dom	Dominica	Jan-Mar	3	148,635	49,545	165,222	-10.0%
Dre	Dominican Republic	Jan-Apr	4	238,811	59,702	259,079	-7.8%
Grn	Grenada	Jan-Mar	3	133,072	44,357	125,461	6.1%
Jam	Jamaica	Jan-Apr	4	654,407	163,601	588,691	11.2%
Mrq	Martinique	Jan-Apr	4	167,610	41,902	114,285	46.7%
Pue	Puerto Rico	Jan-Mar	3	526,428	175,476	417,011	26.2%
Slu	Saint Lucia	Jan-Apr	4	351,717	87,929	322,973	8.9%
StV	St. Vincent & the Grenadines	Jan-Apr	4	52,219	13,054	54,853	-4.8%
UVI	U S Virgin Islands	Jan-Apr	4	842,988	210,747	880,318	-4.2%

| Row 2 | Centre G2 & merge & centre E2 to F2 | 1 mark |
| | Black 16pt sans-serif font | 1 mark |

Formatting	Average visitors/ month as integer	1 mark
	% change column as % with 0,1 or 2 dp	1 mark
Row 3	Enhanced in some way (column heads)	1 mark
Printout	Single portrait page, fully visible, no row or column headings	1 mark

Cruise ship analysis

Cruise Passenger Arrivals - 2015 & 2014

Dcode	Destination	Period	Months	2015 Visitors for this period	2015 Average visitors/ month	2014 Visitors for this period	% change
Ant	Antigua and Barbuda	Jan-Mar	3	320,401	106,800	270,262	18.6%
Aru	Aruba	Jan-Mar	3	214,991	71,663	258,408	-16.8%
Bah	Bahamas	Jan-Mar	3	1,358,623	452,874	1,377,043	-1.3%
Bar	Barbados	Jan-Mar	3	216,561	72,187	161,811	33.8%
Blz	Belize	Jan-Apr	4	447,250	111,812	426,406	4.9%
Ber	Bermuda	Jan-Apr	4	18,718	4,679	25,433	-26.4%
Bri	British Virgin Islands	Jan-Apr	4	280,000	70,000	243,453	15.0%
Cay	Cayman Islands	Jan-Apr	4	719,298	179,824	677,663	6.1%
Coz	Cozumel (Mexico)	Jan-Apr	4	1,455,974	363,993	1,357,701	7.2%
Cur	Curacao	Jan-Apr	4	264,521	66,130	295,373	-10.4%
Dom	Dominica	Jan-Mar	3	148,635	49,545	165,222	-10.0%
Dre	Dominican Republic	Jan-Apr	4	238,811	59,702	259,079	-7.8%
Grn	Grenada	Jan-Mar	3	133,072	44,357	125,461	6.1%
Jam	Jamaica	Jan-Apr	4	654,407	163,601	588,691	11.2%
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Pue	Puerto Rico	Jan-Mar	3	526,428	175,476	417,011	26.2%
Slu	Saint Lucia		4	351,717	87,929	322,973	8.9%
StV	St. Vincent & the Gren		4	52,219	13,054	54,853	-4.8%
UVI	U.S Virgin Is		4	842,988	210,747	880,318	-4.2%

Period	Barbados Jan-Mar & BVI Jan-Apr	1 mark
Months	Barbados 3 & BVI 4	1 mark
2015 visitors	Barbados 216561 & BVI 280000	1 mark

Last edited on 17/10/2017 at 09:46

Step 17 – Part I

	D	E
24	Total visitors to all destinations in 2015	=SUM(E4:E22)
25	Average visitors to each destination in 2015	=AVERAGE(E4:E22)
26	Visitors to the most popular destination in 2015	=MAX(E4:E22)
27	Name of the most popular destination in 2015	=VLOOKUP(E26,E4:I22,5,FALSE)

Step 17 – Part 2

E24 is =SUM(E4:E22) accept abs or relative refs	1 mark
E25 is =AVERAGE(E4:E22)	1 mark
E26 is =MAX(E4:E22)	1 mark
E27 is =VLOOKUP(E26, …)	1 mark
Correct range E4:I22, may be absolute or relative referencing	1 mark
,5,FALSE	1 mark
Appropriate labels for all 4 cells…	1 mark
…including a reference to 2015 for each cell	1 mark
Ranges D24:E27 and I4:I22 visible with row & column headings	1 mark

	I
4	=B4
5	=B5
6	=B6
7	=B7
8	=B8
9	=B9
10	=B10
11	=B11
12	=B12
13	=B13
14	=B14
15	=B15
16	=B16
17	=B17
18	=B18
19	=B19
20	=B20
21	=B21
22	=B22

I4	=B4 & replicate	1 mark

Step 18

Cruise ship analysis

A Candidate 22999 9999

Cruise Passenger Arrivals - 2015 & 2014

				2015		2014		
				Visitors for this period	Average visitors/ month	Visitors for this period	% change	
Dcode	Destination	Period	Months					
Ant	Antigua and Barbuda	Jan-Mar	3	320,401	106,800	270,262	18.6%	Antigua and Barbuda
Aru	Aruba	Jan-Mar	3	214,991	71,663	258,408	-16.8%	Aruba
Bah	Bahamas	Jan-Mar	3	1,358,623	452,874	1,377,043	-1.3%	Bahamas
Bar	Barbados	Jan-Mar	3	216,561	72,187	161,811	33.8%	Barbados
Blz	Belize	Jan-Apr	4	447,250	111,812	426,406	4.9%	Belize
Ber	Bermuda	Jan-Apr	4	18,718	4,679	25,433	-26.4%	Bermuda
Bri	British Virgin Islands	Jan-Apr	4	280,000	70,000	243,453	15.0%	British Virgin Islands
Cay	Cayman Islands	Jan-Apr	4	719,298	179,824	677,663	6.1%	Cayman Islands
Coz	Cozumel (Mexico)	Jan-Apr	4	1,455,974	363,993	1,357,701	7.2%	Cozumel (Mexico)
Cur	Curacao	Jan-Apr	4	264,521	66,130	295,373	-10.4%	Curacao
Dom	Dominica	Jan-Mar	3	148,635	49,545	165,222	-10.0%	Dominica
Dre	Dominican Republic	Jan-Apr	4	238,811	59,702	259,079	-7.8%	Dominican Republic
Grn	Grenada	Jan-Mar	3	133,072	44,357	125,461	6.1%	Grenada
Jam	Jamaica	Jan-Apr	4	654,407	163,601	588,691	11.2%	Jamaica
Mrq	Martinique	Jan-Apr	4	167,610	41,902	114,285	46.7%	Martinique
Pue	Puerto Rico	Jan-Mar	3	526,428	175,476	417,011	26.2%	Puerto Rico
Slu	Saint Lucia	Jan-Apr	4	351,717	87,929	322,973	8.9%	Saint Lucia
StV	St. Vincent & the Grenadines	Jan-Apr	4	52,219	13,054	54,853	-4.8%	St. Vincent & the Grenadines
UVI	U S Virgin Islands	Jan-Apr	4	842,988	210,747	880,318	-4.2%	U S Virgin Islands

Total visitors to all destinations in 2015 8,412,224
Average visitors to each destination in 2015 442,749
Visitors to the most popular destination in 2015 1,455,974
Name of the most popular destination in 2015 Cozumel (Mexico)

| 4 correct values | 1 mark |

Cruise Passenger Arrivals - 2015 & 2014

Dcode	Destination	Period	Months	2015 Visitors for this period	Average visitors/ month	2014 Visitors for this period	% change	
Bar	Barbados	Jan-Mar	3	216,561	72,187	161,811	33.8%	Barbados
Pue	Puerto Rico	Jan-Mar	3	526,428	175,476	417,011	26.2%	Puerto Rico
Ant	Antigua and Barbuda	Jan-Mar	3	320,401	106,800	270,262	18.6%	Antigua and Barbuda
Grn	Grenada	Jan-Mar	3	133,072	44,357	125,461	6.1%	Grenada
Bah	Bahamas	Jan-Mar	3	1,358,623	452,874	1,377,043	-1.3%	Bahamas
Dom	Dominica	Jan-Mar	3	148,635	49,345	165,222	-10.0%	Dominica
Aru	Aruba	Jan-Mar	3	214,991	71,663	258,408	-16.8%	Aruba

Total visitors to all destinations in 2015	8,412,224
Average visitors to each destination in 2015	442,749
Visitors to the most popular destination in 2015	1,455,974
Name of the most popular destination in 2015	Cozumel (Mexico)

Step 19

Search	Months = 3	1 mark
Sort	Descending on percentage change	1 mark

Evidence document

Evidence 1

After a website has been created it will be tested. Identify two factors that must be considered when designing an effective test plan.
2 from:

The purpose of the website
The target audience
Corporate house styles
Describe each item that needs to be tested
Identify inputs (data to be entered)
Identify expected outcomes

1 mark each – Max 2

Evidence 2

Identify two methods of testing a web page:
Functional testing / alpha testing / in-house

1 mark each – Max 2

Evidence 3
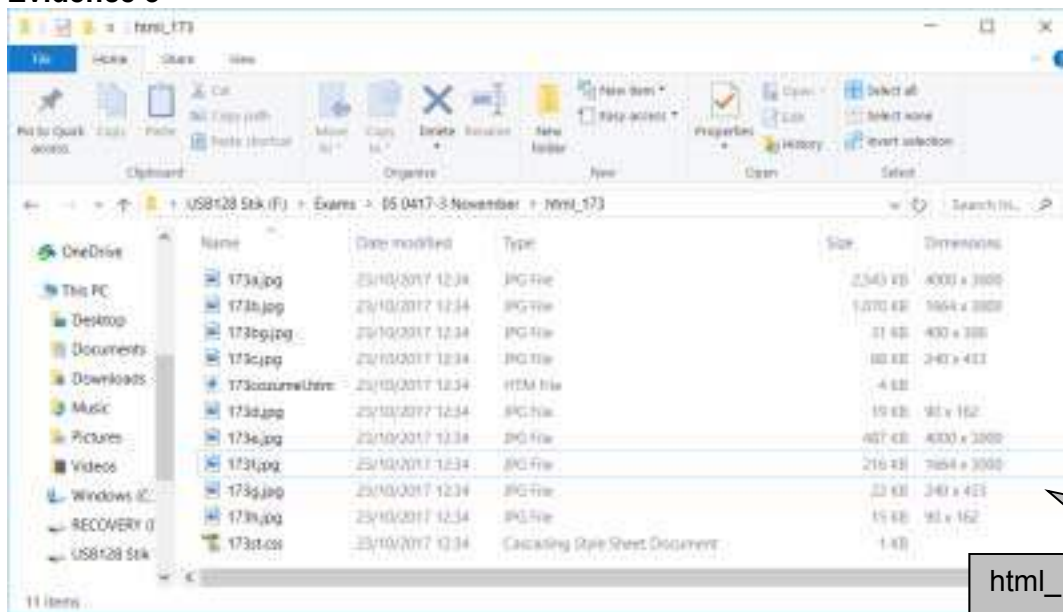
html_173   Correct files and details fully visible   1 mark

Evidence 4
4 from:
Placeholder dimensions are 250 pixels wide.
Placeholder is in portrait orientation.
Images A and E rejected as they have a landscape orientation
Image A is saved at maximum resolution which is not needed for a web page
Images B and F are too large for the placeholder
Images D and H are too small for the placeholder

1 mark each – Max 4

Evidence 5

```
173st.css - Notepad

File  Edit  Format  View  Help

/* A Candidate, ZZ999, 9999 */

h1          {font-family:Arial,Calibri,sans-serif;
             color:#ff0000;
             text-align:center}

p           {text-align:justify}

body        {background-image: url('173bg.jpg');
             background-repeat: repeat}

table       {background-color:#99bbdd;}

table,td    {border:0}

td          {padding:10px}
```

Comments	Name and numbers at top	1 mark
h1	,sans-serif added to font- family	1 mark
	color: set to #ff0000	1 mark
	text-align:center	1 mark
p	text-align:justify	1 mark
body	Correct syntax for placement & tiling of image	1 mark
table	background-color:#99bbdd;	1 mark
	border:0	1 mark
td	padding:10px;	1 mark
CSS syntax	Must have ; between properties	1 mark

Evidence 6

Styles	Attached external stylesheet works	1 mark
Cand details	inserted in correct place	1 mark
Image	Background image applied	1 mark

Evidence 7

```
<!DOCTYPE html>
<html>
 <head>
  <title>CTB homepage</title>
  <link rel="stylesheet" type="text/css" href="173st.css">
 </head>
 <body>
```

Title	CTB homepage	1 mark
	html, head and body syntax correct	1 mark
Styles	Correct stylesheet in head section	1 mark

| ID set | Tag containing appropriate tag id or name | 1 mark |

```
   <div id="top"></div>
   <table style="margin-left:auto; margin-right:auto; width:800px">
    <tr>
     <td colspan=2><h1>Cozumel - Mexico's Cruise Ship Paradise</h1>
     </td>
    </tr>
    <tr>
     <td colspan=2 style="height:50px"><h2>Website of the Cozumel Tourist Board</h2><h3>Website last edited
by: A Candidate, ZZ999, 9999</h3>
     </td>
    </tr>
    <tr>
     <td style="width:250px; height:443px">
       <h1><img src="173g.jpg" alt="Cruise ship"></h1>
     </td>
```

| Space | | 1 mark |

Image	Image g selected	1 mark
	Appropriate alternate text added	1 mark

```
     <td><h2>Paradise Island?</h2><p>This jewel between the Caribbean and the Atlantic has everything you
```

want for a holiday destination. The lack of potable (drinkable) water on the island means that it is
unlikely to be developed more than it is. It hosts just a small town, the 'capital', San Miguel and one
village plus a small number of hotels scattered along its western coastline.</p><p>Whilst a small part of
San Miguel is the 'gringo friendly' tourist area, designed to cater for the significant number of cruise
ship visitors, most of the island retains its quiet cool and genuine authenticity. Garages still have
shrines to the Virgin, there's a spirited Caribbean pathos, and of course there are some tourist things to
do – such as diving and snorkelling on some of the best reefs in the world.</p><p>While diving and
snorkeling are the main draws, the pleasant town square is a nice place to spend the afternoon, and it's
highly gratifying to explore the less-visited parts of the island in a rented Jeep. Beware though, outside

the built up areas is true jungle and swampland. The southern tip 'Punta Sur', has a magnificent lighthouse and a sanctuary for the wild (and native) salt water crocodiles. The coastal road leads to San Gervasio small Mayan ruins, a marine park and captivating scenery along the unforgettable windswept Atlantic shore.</p><p>Watch baby turtles hatching on the beach or the impressive Iguana lazily eying you from the trees or basking in the sun.</p>
```
    </td>
  </tr>
  <tr>
    <td colspan="2"><h2>Palancar reefs</h2><p>Whilst there are many reefs suited to sailing, snorkelling
```
and diving, Palancar reef is by far the best, made famous by Jacques Cousteau in the 1960s. Cousteau said that "Palancar Reef is the most beautiful place on Earth ... even though it's beneath the water".</p> <p>One recent visitor is quoted as saying "This is the reef popularized by Jacques Cousteau in the 1960s. He and his team invented much of the SCUBA equipment and techniques used today. It is a WONDERFUL place to dive. We saw turtles up close and personal every day; lobsters, crabs, nurse sharks, reef sharks, and my favourite, spotted eagle rays in groups slowly flapping their wings to stay stationary in the current. It is mesmerizing. The Palancar Gardens and Santa Rosa Wall are the best dives in my opinion, but you really can't go wrong on any of the well-known sites."</p>
```
  </tr>
  <tr>
```

Anchor	from **Click on this link**	1 mark
	To #anchor name/ID at top	1 mark

```
    <td colspan=2><h3><a href="#top">Click on this link</a> for the top of the page, here to contact the
```

`<a href="http://www.hothouse-design.co.uk/CTB">` from text **CTB**	1 mark

```
  <a href="http://www.hothouse-design.co.uk/CTB">CTB</a>, or click here to <a
href="mailto:webdesign@hothouse-design.co.uk?subject=My%20question">email our design team</a>.</h3>
    </td>
  </tr>
  </table>
 </body>
</html>
```

Anchor from **email our design team**	1 mark
href ="mailto:	1 mark
webdesign@hothouse-design.co.uk	1 mark
?subject=	1 mark
My%20question"	1 mark