

**MARK SCHEME for the October/November 2009 question paper  
for the guidance of teachers**

**9713 APPLIED ICT**

**9713/02**

Paper 2 (Practical Test A), maximum raw mark 120

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 must be read in conjunction with the question papers and the report on the examination.

- CIE will not enter into discussions or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the October/November 2009 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.



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No marks to be awarded for any printout not containing the candidate name, candidate number and centre number

## Between 1 and 4 minutes late

Title 100% correct and in header 1 mark

### Delays

Average 31  
Maximum 788  
Long 9.52%

4 labels 100% correct 1 mark

Flight number	Code	Airline	Due	Arrived	Late	Hours	Minutes	Total minutes
RE207	RE	Aer Arran	10:14	10:17	00:03	0	3	3
RE854	RE	Aer Arran	10:24	10:27	00:03			
EI685	EI	Aer Lingus	10:48	10:50	00:02	0	2	2
EI489	EI	Aer Lingus	10:32	10:33	00:01	0	1	1
SU851	SU					4	0	4
SW362	SW					3	0	3
SW330	SW					2	0	2
AA105	AA					2	0	2
AA837	AA					2	0	2
BA732	BA					2	0	2
BD787	BD					2	0	2
CX174	CX	Cathay Pacific	11:19	11:22	00:03	0	3	3
CX866	CX	Cathay Pacific	12:29	12:32	00:03	0	3	3
CX760	CX	Cathay Pacific	10:27	10:28	00:01	0	1	1
MU955	MU	China Eastern Airlines	09:50	09:51	00:01	0	1	1
T3861	T3	Eastern Airways	10:32	10:35	00:03	0	3	3
T3989	T3	Eastern Airways	12:11	12:12	00:01	0	1	1
U2630	U2	EasyJet	09:29	09:33	00:04	0	4	4
U2110	U2	EasyJet	10:02	10:05	00:03	0	3	3
U2556	U2	EasyJet	09:41	09:44	00:03	0	3	3
U2943	U2	EasyJet	12:59	13:00	00:01	0	1	1
BE529	BE	Flybe	10:04	10:06	00:02	0	2	2
BE790	BE	Flybe	10:23	10:25	00:02	0	2	2
KL174	KL	KLM Royal Dutch Airlines	09:02	09:05	00:03	0	3	3
KL765	KL	KLM Royal Dutch Airlines	10:35	10:37	00:02	0	2	2
KL543	KL	KLM Royal Dutch Airlines	10:01	10:02	00:01	0	1	1
MH593	MH	Malaysia Airlines	09:40	09:43	00:03	0	3	3
QR148	QR	Qatar Airways	09:31	09:34	00:03	0	3	3
Y7761	Y7	Silverjet	09:56	09:57	00:01	0	1	1
SQ825	SQ	Singapore Airlines	09:37	09:40	00:03	0	3	3
NE159	NE	SkyEurope	10:32	10:36	00:04	0	4	4
UA168	UA	Sri Lankan Airlines	10:53	10:54	00:01	0	1	1
SA230	SA	South African Airways	09:10	09:14	00:04	0	4	4
SA979	SA	South African Airways	10:50	10:52	00:02	0	2	2
SA378	SA	South African Airways	10:32	10:33	00:01	0	1	1
SA488	SA	South African Airways	09:14	09:15	00:01	0	1	1
TP648	TP	TAP Air Portugal	11:53	11:57	00:04	0	4	4
TG122	TG	Thai Airways International	12:04	12:06	00:02	0	2	2
HF655	HF	TuiFly	11:27	11:30	00:03	0	3	3
HF230	HF	TuiFly	11:29					
HF268	HF	TuiFly	12:42					
		iFly	10:22	10:23	00:01	0	1	1
		Atlantic	11:41					
		Atlantic	12:53					
		Atlantic	10:41	10:42	00:01	0	1	1
KY136	KY	Waterwings Airways	10:50	10:53	00:03	0	3	3
KY628	KY	Waterwings Airways	09:54	09:55	00:01	0	1	1
XL404	XL	XL Airways	12:01	12:05	00:04	0	4	4

4 new rows inserted 1 mark

Formatting  
Row 1, 2, 3 and 5 – Centre 1 mark  
Row 1, 2, 3 and 5 – Bold 1 mark  
A3 and B3 – integer 1 mark  
C3 – percentage 1 mark  
2 dp 1 mark  
Flight number, Code and Airline – Centre 1 mark

Searching  
Total minutes > 0 and < 5 2 marks

Sorting  
Ascending on Airline then Descending on Total minutes 1 mark

Single page All visible 1 mark

In footer 1 mark

Candidate name, centre number and candidate number

Page N

**Formulae used**

Average  
 Correct function 1 mark  
 Correct range 1 mark

Maximum  
 Correct function 1 mark  
 Correct range 1 mark

Countif  
 Correct function 1 mark  
 Correct range 1 mark  
 Correct comparison 1 mark  
 Divided by 1 mark  
 Cell count (CountA) 1 mark  
 Correct range 1 mark

Searching  
 Total minutes > 90 2 marks  
 Check correct records

	A	B	C		E
1	<b>Delays</b>				
2	<b>Average</b>	<b>Maximum</b>	<b>Long</b>		
3	<b>=AVERAGE(I6:I131)</b>	<b>=MAX(I6:I131)</b>	<b>=COUNTIF(G6:G131,"&gt;0")/COUNTA(G6:G131)</b>		
4					
5	<b>Flight number</b>	<b>Code</b>	<b>Airline</b>	<b>Due</b>	<b>Arrived</b>
6	RE502	=LEFT(A6,2)	=VLOOKUP(B6, N9Airline.csv!\$A\$2:\$C\$32,3)	0.521527777777778	0.640277777777778
42	MU580	=LEFT(A42,2)	=VLOOKUP(B42, N9Airline.csv!\$A\$2:\$C\$32,3)	0.409722222222222	0.704166666666667
49	T3816	=LEFT(A49,2)	=VLOOKUP(B49, N9Airline.csv!\$A\$2:\$C\$32,3)	0.499305555555556	0.597222222222222
63	KL176	=LEFT(A63,2)	=VLOOKUP(B63, N9Airline.csv!\$A\$2:\$C\$32,3)	0.5	0.803472222222222
68	MH776	=LEFT(A68,2)	=VLOOKUP(B68, N9Airline.csv!\$A\$2:\$C\$32,3)	0.424305555555556	0.971527777777778
70	QR628	=LEFT(A70,2)	=VLOOKUP(B70, N9Airline.csv!\$A\$2:\$C\$32,3)	0.534027777777778	0.599305555555556
75	Y7519	=LEFT(A75,2)	=VLOOKUP(B75, N9Airline.csv!\$A\$2:\$C\$32,3)	0.44375	0.574305555555556
78	SQ345	=LEFT(A78,2)	=VLOOKUP(B78, N9Airline.csv!\$A\$2:\$C\$32,3)	0.389583333333333	0.6625
88	UA719	=LEFT(A88,2)	=VLOOKUP(B88, N9Airline.csv!\$A\$2:\$C\$32,3)	0.527083333333333	0.639583333333333
108	HF384	=LEFT(A108,2)	=VLOOKUP(B108, N9Airline.csv!\$A\$2:\$C\$32,3)	0.402083333333333	0.738194444444444

Code  
 Left or Mid function used 1 mark  
 Correct cell reference 1 mark  
 2 character extraction 1 mark

Airline  
 LOOKUP function used 1 mark  
 External file reference 1 mark  
 Correct range 1 mark  
 Absolute reference for range 1 mark  
 Correct return column 1 mark

	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>
<b>1</b>				
<b>2</b>				
<b>3</b>				
<b>4</b>				
<b>5</b>	<b>Late</b>	<b>Hours</b>	<b>Minutes</b>	<b>Total minutes</b>
<b>6</b>	=IF(D6>E6,0,E6-D6)	=HOUR(F6)	=MINUTE(F6)	=60*G6+H6
<b>42</b>	=IF(D42>E42,0,E42-D42)	=HOUR(F42)	=MINUTE(F42)	=60*G42+H42
<b>49</b>	=IF(D49>E49,0,E49-D49)	=HOUR(F49)	=MINUTE(F49)	=60*G49+H49
<b>63</b>	=IF(D63>E63,0,E63-D63)	=HOUR(F63)	=MINUTE(F63)	=60*G63+H63
<b>68</b>	=IF(D68>E68,0,E68-D68)	=HOUR(F68)	=MINUTE(F68)	=60*G68+H68
<b>70</b>	=IF(D70>E70,0,E70-D70)	=HOUR(F70)	=MINUTE(F70)	=60*G70+H70
<b>75</b>	=IF(D75>E75,0,E75-D75)	=HOUR(F75)	=MINUTE(F75)	=60*G75+H75
<b>78</b>	=IF(D78>E78,0,E78-D78)	=HOUR(F78)	=MINUTE(F78)	=60*G78+H78
<b>88</b>	=IF(D88>E88,0,E88-D88)	=HOUR(F88)	=MINUTE(F88)	=60*G88+H88
<b>108</b>	=IF(D108>E108,0,E108-D108)	=HOUR(F108)	=MINUTE(F108)	=60*G108+H108

Hours  
Correct function used  
Or appropriate calculation  
2 marks

Minutes  
Correct function used  
Or appropriate calculation  
2 marks

Row headings visible 1 mark  
Column headings visible 1 mark  
Landscape orientation 1 mark

Total minutes  
Correct formula used 2 marks

Replication  
Correct replication 1 mark  
All formulae and labels fully visible 1 mark

Late  
IF used 1 mark  
> condition correct 1 mark  
Zero if not 1 mark  
subtraction 1 mark

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TuiFly	9	509
South African Airways	8	0
XL Airways	7	69
Aer Arran	7	171
Singapore Airlines	7	404
China Eastern Airlines	7	443
Cathay Pacific	6	0
EasyJet	5	0
Virgin Atlantic	5	0
TAP Air Portugal	5	31
American Airlines	5	78
Eastern Airways	5	141
KLM Royal Dutch Airlines	5	437
Aer Lingus	4	0
Air Namibia	4	0
British Airways	4	19
Qatar Airways	4	94
Sri Lankan Airlines	4	162
Air France	3	0
Waterwings Airways	3	0
Thai Airways International	3	0
Flybe	3	41
SkyEurope	3	47
Silverjet	3	206
British Midland	2	0
Malaysia Airlines	2	788
Emirates	1	0
Scandanavian Airlines	1	0
Aeroflot	1	0
Lufthansa	0	0
Swiss International Airlines	0	0

Sorting  
Descending on number of flights 1 mark  
Single page 1 mark  
Fully visible 1 mark

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TuiFly	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A2)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A2,N9Flight!\$J\$6:\$J\$131)
South African Airways	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A3)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A3,N9Flight!\$J\$6:\$J\$131)
XL Airways	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A4)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A4,N9Flight!\$J\$6:\$J\$131)
Aer Arran	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A5)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A5,N9Flight!\$J\$6:\$J\$131)
Singapore Airlines	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A6)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A6,N9Flight!\$J\$6:\$J\$131)
China Eastern Airlines	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A7)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A7,N9Flight!\$J\$6:\$J\$131)
Cathay Pacific	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A8)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A8,N9Flight!\$J\$6:\$J\$131)
EasyJet	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A9)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A9,N9Flight!\$J\$6:\$J\$131)
Virgin Atlantic	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A10)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A10,N9Flight!\$J\$6:\$J\$131)
TAP Air Portugal	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A11)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A11,N9Flight!\$J\$6:\$J\$131)
American Airlines	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A12)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A12,N9Flight!\$J\$6:\$J\$131)
Eastern Airways	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A13)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A13,N9Flight!\$J\$6:\$J\$131)
KLM Royal Dutch Airlines	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A14)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A14,N9Flight!\$J\$6:\$J\$131)
Aer Lingus	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A15)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A15,N9Flight!\$J\$6:\$J\$131)
Air Namibia	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A16)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A16,N9Flight!\$J\$6:\$J\$131)
British Airways	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A17)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A17,N9Flight!\$J\$6:\$J\$131)
Qatar Airways	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A18)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A18,N9Flight!\$J\$6:\$J\$131)
Sri Lankan Airlines	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A19)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A19,N9Flight!\$J\$6:\$J\$131)
Air France	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A20)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A20,N9Flight!\$J\$6:\$J\$131)
Waterwings Airways	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A21)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A21,N9Flight!\$J\$6:\$J\$131)
Thai Airways International	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A22)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A22,N9Flight!\$J\$6:\$J\$131)
Flybe	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A23)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A23,N9Flight!\$J\$6:\$J\$131)
SkyEurope	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A24)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A24,N9Flight!\$J\$6:\$J\$131)
Silverjet	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A25)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A25,N9Flight!\$J\$6:\$J\$131)
British Midland	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A26)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A26,N9Flight!\$J\$6:\$J\$131)
Malaysia Airlines	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A27)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A27,N9Flight!\$J\$6:\$J\$131)
Emirates	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A28)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A28,N9Flight!\$J\$6:\$J\$131)
Scandinavian Airlines	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A29)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A29,N9Flight!\$J\$6:\$J\$131)
Aeroflot	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A30)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A30,N9Flight!\$J\$6:\$J\$131)
Lufthansa	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A31)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A31,N9Flight!\$J\$6:\$J\$131)
Swiss International Airlines	=COUNTIF(N9Flight!\$C\$6:\$C\$131,A32)	=SUMIF(N9Flight!\$C\$6:\$C\$131,A32,N9Flight!\$J\$6:\$J\$131)

**Replication**

Correct replication	1 mark
All data fully visible	1 mark

**Countif**

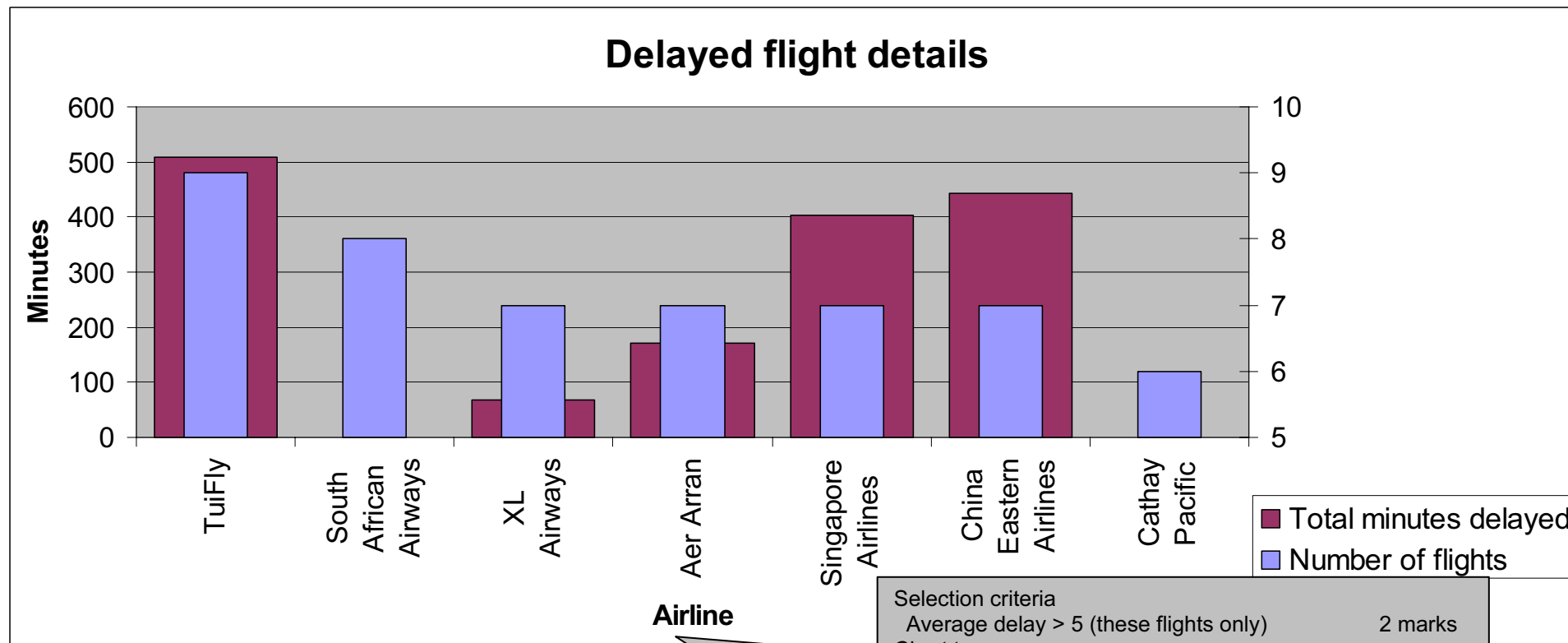
Correct function	1 mark
Correct range	1 mark
Correct comparison	1 mark

**SUMif**

Correct function	2 marks
Correct range	1 mark
Correct comparison	1 mark
Correct range	1 mark
Landscape orientation	1 mark

**Candidate name, centre number and candidate number**

Page



- Selection criteria
  - Average delay > 5 (these flights only) 2 marks
- Chart type
  - Appropriate (Comparative bar) 2 marks
  - Allow 1 mark for bar and line
- Category Axis
  - Airline names in full 1 mark
  - Meaningful and appropriate axis label 1 mark
- Value Axes
  - Two axes shown 1 mark
  - Meaningful and appropriate axis labels 2 marks
  - Number of flights axis rescaled – min 5 2 marks
  - Integer values for interval on number of flights 2 marks
- Chart Title
  - Meaningful and appropriate chart title 1 mark
- Legend
  - Visible, correct and appropriate 2 marks

Candidate name, centre number and candidate number



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## Step 35

What is a widow:

- single line of a paragraph [1]
- top of the page/column
- end of a paragraph

[Max 1]

What is an orphan:

- single line of a paragraph/heading/subheading [1]
- bottom of page/column
- start of a paragraph/title

[Max 1]

[This section max 4 marks]

To remove them manually using:

- insert Page break
- insert column break
- insert text wrapping break
- insert section break
- resize/edit frames
- edit document margins
- resize images

[Max 6]

To remove them automatically using:

- software's pagination options
- edit kerning
- edit leading
- edit master styles/master frame control

accept examples like: example in Microsoft Word

- **Format** menu
- **Paragraph...**
- **Line and Page** tab
- **Widow/Orphan control** tick box

example in Microsoft Publisher

- **Format** menu
- **Paragraph...**,
- **Line and Paragraph Breaks** tab
- **Widow/Orphan control** tick box.

[Max 6]

[This section max 8 marks]

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Candidate name

Centre number

Candidate number

This is the text from the previous section – content not marked here.

Standing proudly beside the glittering, blue ocean in the burgeoning resort of Tawara Beach, it aims to offer 5 star service in a 5 star location. On arrival

dazzling swimming pools and on the beach constantly be

thrilled to be at Tawara Beach for your holiday

Inside the hotel you'll discover elegant bedrooms and a view from a

<automated filename here>

Image	
Align to top margin	1 mark
Align to column width	1 mark
Right side T cropped	1 mark
Not distorted	1 mark
Text wrap below	1 mark

Page	
A4 landscape	1 mark
Margins	
4 cm all around	1 mark
2 cm left gutter	2 marks

Footer	
Automated filename – left	1 mark
Automated page number – right	1 mark
MUST align to margins	

Header	
Candidate name – left	1 mark
Centre number – centre	1 mark
Candidate number – right	1 mark
MUST align to margins	



full entertainment programme to a well equipped fitness centre. So, whether you're a young family looking for a lively week filled with fun and activities, relaxation and

Body text – <b>ONLY award if &gt; 500 words</b>	
size of 14 points	1 mark
1.5 line spacing	1 mark
2 columns	1 mark
1 centimetre space between	1 mark
serif font	1 mark
fully justified	1 mark
applied to all text	1 mark

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Candidate name

Centre number

Candidate number

romance, the world class Hotel Tawara Beach will have what you're looking for, and more.

The hotel lies directly on the golden beach and is just 1.5km from the shopping centre with souvenir shops and a chemist. Venture into Tawara resort centre, 7km away, for a selection of beach bars and restaurants. Just 17km away is Galle, itself built around an old Fort jutting out into the Indian Ocean. It is a labyrinth of streets and is mainly

resident and restaurants. It is starting to be developed but don't expect a European style walled city with a

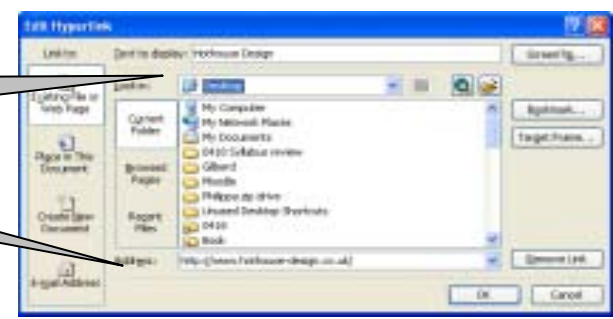
multitude of tourist shops. One of the great pleasures is to stroll around the rampart of an evening along with many of the residents. Something you have to get used to is the friendliness of the people – they will want to chat to you (usually about cricket).

Image by [Hothouse Design](#)

[Contact us](#)

Hyperlinks created (marks below)

Hyperlink  
Correct text 1 mark  
Correct web address 1 mark

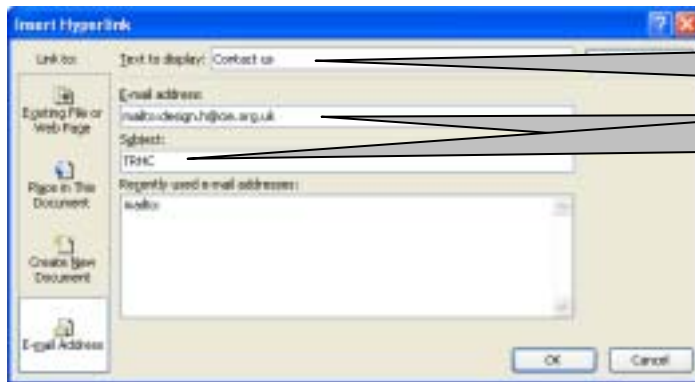


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Candidate name

Centre number

Candidate number



Hyperlink	
Correct text	1 mark
Correct web address	1 mark
Correct subject line	1 mark