

**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

Sorting
Ascending on Airline then Descending on Total minutes 1 mark

Searching
Total minutes > 0 and < 5 2 marks

Single page
All visible 1 mark

In footer 1 mark

Candidate name, centre number and candidate number

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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	Delays				
2	Average	Maximum	Long		
3	=AVERAGE(I6:I131)	=MAX(I6:I131)	=COUNTIF(G6:G131,">0")/COUNTA(G6:G131)		
4					
5	Flight number	Code	Airline	Due	Arrived
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

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

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

Candidate name, centre number and candidate number

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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

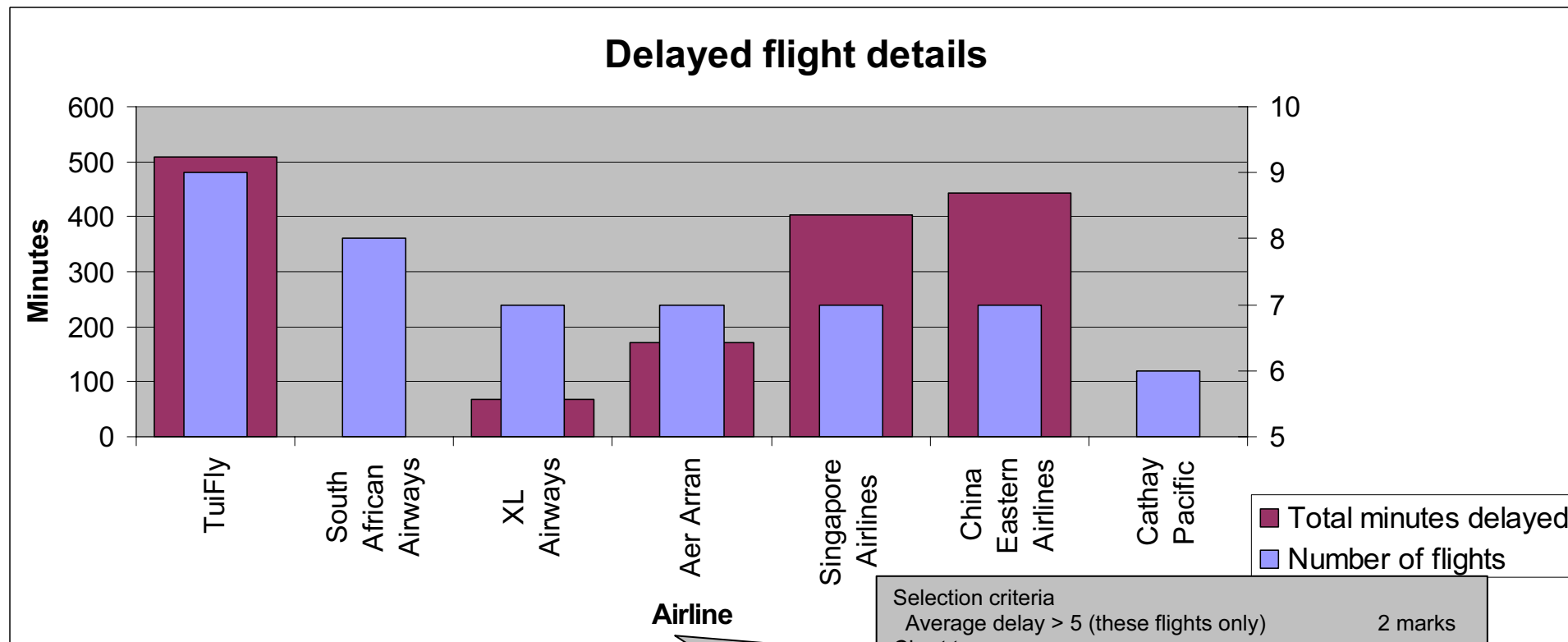
Correct function	1 mark
Correct range	1 mark
Correct comparison	1 mark

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

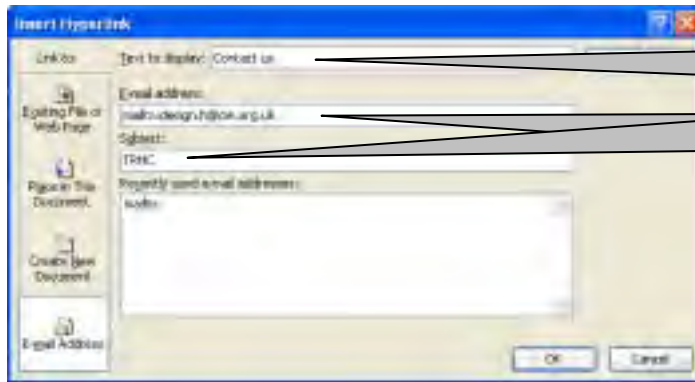
Body text – ONLY award if > 500 words	
size of 14 points	1 mark
1.5 line spacing	1 mark
2 columns	1 mark
1 centimetre space between	1 mark
serif font	1 mark
fully justified	1 mark
applied to all text	1 mark

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Candidate name

Centre number

Candidate number



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