

**MARK SCHEME for the May/June 2012 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.

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

Cambridge is publishing the mark schemes for the May/June 2012 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

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9713 – June 2012

AS Level – Paper 2 – Practical Test

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

Page 3	Mark Scheme: Teachers' version	Syllabus	Paper
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Top 4 rows deleted	1 mark	No row and column headers	1 mark
Landscape	1 mark	Correct Venue names	2 marks
Single page	1 mark	Correct Venue location	2 marks
All data & labels visible	1 mark	Correct Venue capacity	2 marks

<i>Arrive</i>	<i>Venue code</i>	<i>Venue name</i>	<i>Venue location</i>	<i>Leave</i>	<i>Capacity</i>	<i>Trucks</i>	<i>Miles to next venue</i>	<i>Driving time</i>	<i>Drivers</i>
28-Dec-12	STOR	Storage	London	03-Jan-13		15	26	28	15
03-Jan-13	LOHA	Hammersmith Apollo	London	03-Jan-13	5039	4	398	434	8
05-Jan-13	EDCE	Corn Exchange	Edinburgh	06-Jan-13	1500	15	172	188	15
07-Jan-13	BINE	LG Arena NEC	Birmingham	07-Jan-13	13000	4	178	194	4
08-Jan-13	TOPT	Princes Theatre	Torquay	08-Jan-13	1491	6	100	109	6
09-Jan-13	BRCH	Colston Hall	Bristol	09-Jan-13	2075	4	511	557	8
11-Jan-13	ABMH	Music Hall	Aberdeen	11-Jan-13	1453	11	607	662	33
14-Jan-13	POLC	Lighthouse Arts Centre	Poole	14-Jan-13	4000	6	174	190	6
15-Jan-13	LEDM	De Montfort Hall	Leicester	15-Jan-13	2000	15	130	142	15
16-Jan-13	CAIA	International Arena	Cardiff	16-Jan-13	7500	2	192	209	2
17-Jan-13	LLVC	Venue Cymru	Llandudno	17-Jan-13	160	5	255	278	5
18-Jan-13	REHT	Hexagon Theatre	Reading	18-Jan-13	1686	8	408	445	16
21-Jan-13	GLAU	Clyde Auditorium	Glasgow	21-Jan-13	3000	5	354	386	10
23-Jan-13	CAEX	Corn Exchange	Cambridge	23-Jan-13	1800	4	54	59	4
24-Jan-13	IPCE	Corn Exchange	Ipswich	24-Jan-13	1535	15	285	311	30
25-Jan-13	NEMR	Metro Radio Arena	Newcastle	25-Jan-13	11400	15	286	312	30
26-Jan-13	LOEC	Earls Court	London		15000				

Total mileage	4130	
Max drivers		33
Min drivers		2

Footer - Lyryx Tour Plan by (cand details) – right aligned	1 mark
Labels in row 1 and this block	
Bold	1 mark
<i>Italic</i>	1 mark
Centre aligned	1 mark

Lyryx Tour Plan by (candidate details)

	A	B	C
1	Arrive	Venue code	Venue name
2	41271	STOR	Storage
3	41277	LOHA	=VLOOKUP(B3,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
4	41279	EDCE	=VLOOKUP(B4,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
5	41281	BINE	=VLOOKUP(B5,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
6	41282	TOPT	=VLOOKUP(B6,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
7	41283	BRCH	=VLOOKUP(B7,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
8	41285	ABMH	=VLOOKUP(B8,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
9	41288	POLC	=VLOOKUP(B9,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
10	41289	LEDM	=VLOOKUP(B10,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
11	41290	CAIA	=VLOOKUP(B11,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
12	41291	LLVC	=VLOOKUP(B12,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
13	41292	REHT	=VLOOKUP(B13,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
14	41295	GLAU	=VLOOKUP(B14,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
15	41297	CAEX	=VLOOKUP(B15,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
16	41298	IPCE	=VLOOKUP(B16,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
17	41299	NEMR	=VLOOKUP(B17,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
18	41300	LOEC	=VLOOKUP(B18,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,2,FALSE)
19			
20			
21			
22			

Venue name	
LOOKUP function & column B	1 mark
External file reference	1 mark
Correct range	1 mark
Range – absolute reference	1 mark
Correct return column	1 mark

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	D	E
1	Venue location	Leave
2	London	41277
3	=VLOOKUP(B3,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	41277
4	=VLOOKUP(B4,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	41280
5	=VLOOKUP(B5,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	41281
6	=VLOOKUP(B6,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	41282
7	=VLOOKUP(B7,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	41283
8	=VLOOKUP(B8,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	41285
9	=VLOOKUP(B9,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	41288
10	=VLOOKUP(B10,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	41289
11	=VLOOKUP(B11,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	41290
12	=VLOOKUP(B12,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	41291
13	=VLOOKUP(B13,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	41292
14	=VLOOKUP(B14,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	41295
15	=VLOOKUP(B15,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	41297
16	=VLOOKUP(B16,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	41298
17	=VLOOKUP(B17,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	41299
18	=VLOOKUP(B18,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,3,FALSE)	
19		
20		
21	Venue Location	
22	LOOKUP with external file reference	1 mark
	Correct absolute range & return column	1 mark

F	
1	Capacity
2	
3	=VLOOKUP(B3,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
4	=VLOOKUP(B4,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
5	=VLOOKUP(B5,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
6	=VLOOKUP(B6,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
7	=VLOOKUP(B7,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
8	=VLOOKUP(B8,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
9	=VLOOKUP(B9,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
10	=VLOOKUP(B10,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
11	=VLOOKUP(B11,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
12	=VLOOKUP(B12,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
13	=VLOOKUP(B13,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
14	=VLOOKUP(B14,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
15	=VLOOKUP(B15,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
16	=VLOOKUP(B16,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
17	=VLOOKUP(B17,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
18	=VLOOKUP(B18,'C:\Users\Graham\Documents\CIE\9713\June 2012\[Venues.xls]J12venue'!\$A\$4:\$D\$125,4,FALSE)
19	
20	Total mileage
21	Total driving time
22	Max drivers
23	Min drivers

Capacity	
LOOKUP with external file reference	1 mark
Correct absolute range & return column	1 mark

	G	H	I	J
1	Trucks	Miles to next venue	Driving time	Drivers
2	=IF(F3<401,2,IF(F3<5000,ROUNDUP(F3/400,0),15))	26	=ROUND(60*H2/55,0)	=INT(1+I2/300)*G2
3	=IF(F4<401,2,IF(F4<5000,ROUNDUP(F4/400,0),15))	398	=ROUND(60*H3/55,0)	
4	=IF(F5<401,2,IF(F5<5000,ROUNDUP(F5/400,0),15))	172	=ROUND(60*H4/55,0)	
5	=IF(F6<401,2,IF(F6<5000,ROUNDUP(F6/400,0),15))	178	=ROUND(60*H5/55,0)	
6	=IF(F7<401,2,IF(F7<5000,ROUNDUP(F7/400,0),15))	100	=ROUND(60*H6/55,0)	
7	=IF(F8<401,2,IF(F8<5000,ROUNDUP(F8/400,0),15))	511	=ROUND(60*H7/55,0)	=INT(1+I7/300)*G7
8	=IF(F9<401,2,IF(F9<5000,ROUNDUP(F9/400,0),15))	607	=ROUND(60*H8/55,0)	=INT(1+I8/300)*G8
9	=IF(F10<401,2,IF(F10<5000,ROUNDUP(F10/400,0),15))	174	=ROUND(60*H9/55,0)	=INT(1+I9/300)*G9
10	=IF(F11<401,2,IF(F11<5000,ROUNDUP(F11/400,0),15))	130	=ROUND(60*H10/55,0)	=INT(1+I10/300)*G10
11	=IF(F12<401,2,IF(F12<5000,ROUNDUP(F12/400,0),15))	192	=ROUND(60*H11/55,0)	=INT(1+I11/300)*G11
12	=IF(F13<401,2,IF(F13<5000,ROUNDUP(F13/400,0),15))	255	=ROUND(60*H12/55,0)	=INT(1+I12/300)*G12
13	=IF(F14<401,2,IF(F14<5000,ROUNDUP(F14/400,0),15))	408	=ROUND(60*H13/55,0)	=INT(1+I13/300)*G13
14	=IF(F15<401,2,IF(F15<5000,ROUNDUP(F15/400,0),15))	354	=ROUND(60*H14/55,0)	=INT(1+I14/300)*G14
15	=IF(F16<401,2,IF(F16<5000,ROUNDUP(F16/400,0),15))	54	=ROUND(60*H15/55,0)	=INT(1+I15/300)*G15
16	=IF(F17<401,2,IF(F17<5000,ROUNDUP(F17/400,0),15))	285	=ROUND(60*H16/55,0)	=INT(1+I16/300)*G16
17	=IF(F18<401,2,IF(F18<5000,ROUNDUP(F18/400,0),15))	286	=ROUND(60*H17/55,0)	=INT(1+I17/300)*G17
18				
19				
20		=SUM(H2:H17)		
21			=SUM(I2:I17)	
22				=MAX(J2:J17)
				=MIN(J2:J17)

Driving time
Rounded to 0 dp
60*
cell reference to column H
/55

1 mark
1 mark
1 mark
1 mark

Drivers
INTEGER or ROUND function
1 +
Cell ref to column I
/300
* G2

1 mark
1 mark
1 mark
1 mark
1 mark

Fully visible
Row headings
Column headings
All formulae & labels

1 mark
1 mark
1 mark

Number of trucks
Nested IF
Column F<401
results in 2 (not in "")
Column F <5000
Results rounded up as Integer+
Column F/400
default or condition (>=5000) set to 15

2 marks
1 mark
1 mark
1 mark
1 mark
1 mark
1 mark

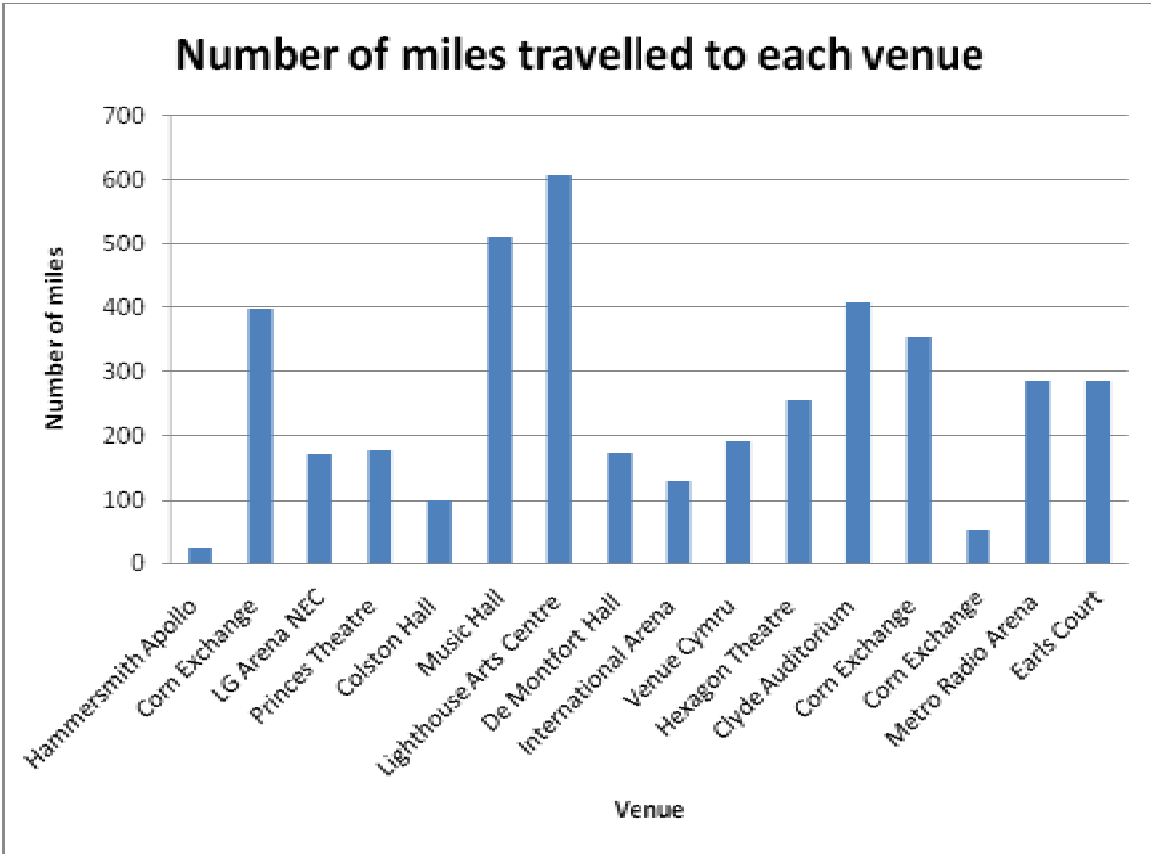
Total mileage
Correct calc SUM(H2:H17)
Total drive time or Total distance covered
Max drivers
Correct calculation MAX(J2:J17)
Min drivers
Correct calculation MIN(J2:J17)

1 mark
1 mark
1 mark
1 mark
1 mark

Replication
correct for all 6 columns
G18 to J18 not replicated
Labels
Appropriate labels for calculations
Appropriate cells for labels & calcs

1 mark
1 mark
1 mark
1 mark

Chart created	
Title – appropriate & meaningful	1 mark
Chart type - appropriate	2 marks
Category Axis title - appropriate	1 mark
Appropriate Value Axis title or legend	1 mark
Category Axis labels correct	1 mark
Values correct for labels	2 marks



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Accept

Content (K & U) – Maximum 17 marks

Content:

These 5 marks are independent of references to database or spreadsheet.

Why used

To minimise errors	1 mark
In data entry	1 mark

Validation

(Rule used) to ensure data is reasonable/sensible	1 mark
---	--------

Verification

To ensure data is entered accurately	1 mark
To ensure data is transferred accurately	1 mark

Content:

These marks are **MUST** include references to database or spreadsheet to be awarded.

Accept appropriate examples.

How used

Validation

Range check – To ensure data entered in cell/field is within predetermined values	1 mark
---	--------

(File) Lookup check – To ensure data entered in cell/field matches acceptable data stored in pre-defined file/table	1 mark
---	--------

Format check/Input mask – To ensure data matches a pre-determined pattern of letters/numbers/ characters	1 mark
--	--------

Length check – To ensure the number of characters entered is no more or no less than the given range of characters	1 mark
--	--------

Type check – To ensure data entered in cell/field is of a specified type (eg. Numeric)	1 mark
--	--------

Presence check – To ensure a database field is not left blank	1 mark
---	--------

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Verification

Visual verification

Source document compared with data entered into cells of spreadsheet/database fields 2 marks

Double entry

(Database) table/transaction file/etc entered twice by different operators

Compared by system/computer 2 marks

Of transmitted data

To check the contents of a file are not corrupted...

...when being transmitted from one part of system to another/between computer systems 2 marks

Max 17 marks

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Practical skills – Maximum 32 marks

These practical skills will only be awarded marks if there are more than 100 words present.

Page layout

A4	1 mark
Landscape	1 mark
Left, right and top margins 2 cm	1 mark
Bottom margin 3 cm	1 mark

Footer

Author's name left aligned with margin	2 marks
Date of document production right aligned with margin	2 marks
Black 14 point	1 mark
Serif font	1 mark

Heading

20 point, (bold)	1 mark
Sans-serif font	1 mark
Single column	1 mark
Black background & white font colour	2 marks
No spacing before & spacing after 10 point	1 mark
Centre aligned	1 mark

Subheading

14 point, (bold)	1 mark
Sans-serif font	1 mark
2 columns with 2 cm spacing	2 marks
Subheading fit within single column	1 mark
Black background & white font colour	2 marks
Spacing before and after 7 point & consistent	2 marks
Left aligned	1 mark

Body text

12 point	1 mark
Sans-serif font	1 mark
Black text on a white background	1 mark
2 columns with 2 cm spacing	2 marks
Subheading fit within single column	1 mark
0 spacing before & 6 point spacing after & consistent	2 marks
Fully justified	1 mark

Images

All images must fit within column spacing	1 mark
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Bullets


Plain filled disc	1 mark
Indented 1 centimetre from left margin of column	1 mark

1/29/2011

Presentation 4 slides and slide titles	1 mark
Printed 4 per page	1 mark

RockICT promotions

- [Band news](#)
- [RockICT website](#)



RockICT headlines

Band news

The best of...

1



Hyperlink from text Band news
To open the third slide

1 mark
1 mark



Hyperlink from text RockICT website
To open the website <http://www.rockict.net>

1 mark
1 mark



Menu options created for Band news & RockICT website

Image representing sending an email

Image set as hyperlink

Mailto:Lyryx@rockict.net

Subject line Lyryx Fan Club

1 mark
1 mark
1 mark
1 mark
1 mark