APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY   **9713/02**

Paper 2 Practical Test A   **October/November 2017**

MARK SCHEME

Maximum Mark: 120

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.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the October/November 2017 series for most Cambridge IGCSE®, Cambridge International A and AS Level components and some Cambridge O Level components.

This document consists of **21** printed pages.

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

Slide 1

ZZ999, 9999, A Candidate

Hothouse Design – notes for trainees

Presented by: A Candidate

Presentation created	1 mark
Slide master	
Candidate name & no's top left	1 mark
Black 18pt serif font	1 mark
All slides	
Not overlapping	1 mark
Title/subtitle in appropriate format	1 mark
Body text on slides	
Black font	1 mark
Sans serif font	1 mark
Consistent within slide	1 mark

Slide 1
Title slide added	1 mark
Title & subtitle accurate & appropriate size/style	1 mark

Slide 2

Slide 3

ZZ999, 9999, A Candidate

Corporate house style

4 features of a corporate house style are:

- **Consistent colour scheme**
- **Consistent font styles**
- **Logo/trade mark/symbol**
- **Branding**
- **Set of rules**
- **Document specifications**

[Max 4]

Slide 4

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Corporate house style

2 reasons why it is used are:

- Method of recognising company/brand recognition
- Ensure consistency of company documents

[2]

Slide 5

Slide 6

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Corporate house style

6 examples where it may be seen are:

- Letterheads
- Business cards
- Advertising
- Websites
- Company vehicles
- Intranet
- Predefined in software   [Max 6]

Slide 7

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Verification

Verification ensures:

- Accuracy of data entry
- Integrity of transmitted data/data is consistent/not corrupted

[2]

Slide 8

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Verification

7 methods of verification are:

- Double entry
- Two documents compared by computer
- Visual verification
- Manually compares original/source document with data entered
- Data block verification
- Checked by computer following transmission
- Using checksum

[7]

Slide 9

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Validation

Validation ensures:

- **Data entered is reasonable**

[1]

Slide 10

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Validation

Validation does not always work because:

- Data can be reasonable, (eg: in dd/mm/yy format date shows 08/01/17 for 1st August) but not correct.

[1]

Slide 11

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Validation

5 methods of validation are:

- **Range check**
- **Look up check**
- **Format check**
- **Length check**
- **Type check** [5]

Planning time for tasks

Header 100% correct   1 mark
Fits to single page   1 mark
Gridlines visible   1 mark
Contents fully visible   1 mark
Cells A1 to L20 only visible   1 mark

Row 2 deleted   1 mark

Row 1 & Column A – Bold   1 mark
Row 1 & Column A – Centre aligned   1 mark

Data in row 11 correct   1 mark

Dates 100% correct   1 mark

	A	B	C	D	E	F	G	H	I	J		L
1	Project completion	Start date	Day	Month	Year	Planning	Design	Creation	Event	End date	Full end date	Working
2	Event 1	28/08/2016	28	8	2016	50	24	30	6	16/12/2016	16 December 2016 [Quarter 3]	2016 [Quarter 3]
3	Event 2	16/10/2016	16	10	2016	32	22	50	10	07/02/2017	07 February 2017 [Quarter 4]	2017 [Quarter 4]
4	Event 3	02/11/2016	2	11	2016	30	21	45	7	13/02/2017	13 February 2017 [Quarter 4]	2017 [Quarter 4]
5	Event 4	30/11/2016	30	11	2016	36	28	42	7	23/03/2017	23 March 2017 [Quarter 4]	2017 [Quarter 4]
6	Event 5	01/12/2016	1	12	2016	45	45	72	14	26/05/2017	26 May 2017 [Quarter 1]	2017 [Quarter 1]
7	Event 6	02/12/2016	2	12	2016	2	4					2016 [Quarter 3]
8	Event 7	30/12/2016	30	12	2016	20	10					2017 [Quarter 4]
9	Event 8	15/02/2017	15	2	2017	36	72	60		16/08/2017	16 August 2017 [Quarter 2]	2017 [Quarter 2]
10	Event 9	02/03/2017	2	3	2017	6	12		1	29/03/2017	29 March 2017 [Quarter 4]	2017 [Quarter 4]
11	Event 10	01/04/2017	1	4	2017	3	4	10	7	25/04/2017	25 April 2017 [Quarter 1]	2017 [Quarter 1]
12												
13	Completion dates during											
14	2016 [Quarter 1]	0										
15	2016 [Quarter 2]	0										
16	2016 [Quarter 3]	2										
17	2016 [Quarter 4]	0										
18	2017 [Quarter 1]	2										
19	2017 [Quarter 2]	1										
20	2017 [Quarter 3]	0										

Row 12 (now seen as 11)
Inserted & Event 10 placed   1 mark
Global replace –Task to Event   1 mark

Columns B & J – dd/mm/yyyy format   1 mark
Display for column K as shown   1 mark

Correct values shown for count   1 mark

Candidate name & numbers

In footer   1 mark

Header 100% correct   1 mark
Landscape   1 mark
Row & column headings fully visible   1 mark
Formulae, labels & gridlines fully visib.   1 mark

Formulae and functions used

	Project completion	Start date	Day	Month	Year	Planning	Design	Creation	Event	End date
1				D	E	F	G	H	I	J
2	Event 1	42610	=DAY(B2)	=MONTH(B2)	=YEAR(B2)	50	24	30	6	=SUM(B2,F2:I2)
3	Event 2	42659	=DAY(B3)	=MONTH(B3)	=YEAR(B3)	32	22	50	10	=SUM(B3,F3:I3)
4	Event 3	42676	=DAY(B4)	=MONTH(B4)	=YEAR(B4)	30	21	45	7	=SUM(B4,F4:I4)
5	Event 4	42704	=DAY(B5)	=MONTH(B5)	=YEAR(B5)	36	28	42	7	=SUM(B5,F5:I5)
6	Event 5	42705	=DAY(B6)	=MONTH(B6)	=YEAR(B6)	45	45	72	14	=SUM(B6,F6:I6)
7	Event 6	42706	=DAY(B7)	=MONTH(B7)	=YEAR(B7)	2	4	10	2	=SUM(B7,F7:I7)
8	Event 7	42734	=DAY(B8)	=MONTH(B8)	=YEAR(B8)	20	10	10	5	=SUM(B8,F8:I8)
9	Event 8	42781	=DAY(B9)	=MONTH(B9)	=YEAR(B9)	36	72	60	14	=SUM(B9,F9:I9)
10	Event 9	42796	=DAY(B10)	=MONTH(B10)	=YEAR(B10)	6	12	8	1	=SUM(B10,F10:I10)
11	Event 10	42826	=DAY(B11)							=SUM(B11,F11:I11)
12										
13	Completion dates during									
14	2016 [Quarter 1]	=COUNTIF(L$2:L$11,A14)								
15	2016 [Quarter 2]	=COUNTIF(L$2:L$11,A15)								
16	2016 [Quarter 3]	=COUNTIF(L$2:L$11,A16)								
17	2016 [Quarter 4]	=COUNTIF(L$2:L$11,A17)								
18	2017 [Quarter 1]	=COUNTIF(L$2:L$11,A18)								
19	2017 [Quarter 2]	=COUNTIF(L$2:L$11,A19)								
20	2017 [Quarter 3]	=COUNTIF(L$2:L$11,A20)								

Day   Correct function   1 mark
Month   Correct function   1 mark
Year   Correct function   1 mark
End date   Correct calculation   1 mark
Most efficient method   1 mark

COUNTIF   1 mark
Correct range   to working column   1 mark
Condition   reference to cell in A   1 mark
Replication   All formulae   1 mark

A Candidate, ZZ999, 9999

Working

=RIGHT()   1 mark

K2   1 mark

,16 characters   1 mark

Formulae and functions used

	Full end date	L Working	M	N	O
1					
2	=TEXT(J2," dd mmmmmmmm yyyy")&" ["&VLOOKUP(MONTH(J2),$N$2:$O$13,2,FALSE)&"]"	=RIGHT(K2,16)		1	Quarter 4
3	=TEXT(J3," dd mmmmmmmm yyyy")&" ["&VLOOKUP(MONTH(J3),$N$2:$O$13,2,FALSE)&"]"	=RIGHT(K3,16)		2	Quarter 4
4	=TEXT(J4," dd mmmmmmmm yyyy")&" ["&VLOOKUP(MONTH(J4),$N$2:$O$13,2,FALSE)&"]"	=RIGHT(K4,16)		3	Quarter 4
5	=TEXT(J5," dd mmmmmmmm yyyy")&" ["&VLOOKUP(MONTH(J5),$N$2:$O$13,2,FALSE)&"]"	=RIGHT(K5,16)		4	Quarter 1
6	=TEXT(J6," dd mmmmmmmm yyyy")&" ["&VLOOKUP(MONTH(J6),$N$2:$O$13,2,FALSE)&"]"	=RIGHT(K6,16)		5	Quarter 1
7	=TEXT(J7," dd mmmmmmmm yyyy")&" ["&VLOOKUP(MONTH(J7),$N$2:$O$13,2,FALSE)&"]"	=RIGHT(K7,16)		6	Quarter 1
8	=TEXT(J8," dd mmmmmmmm yyyy")&" ["&VLOOKUP(MONTH(J8),$N$2:$O$13,2,FALSE)&"]"	=RIGHT(K8,16)		7	Quarter 2
9	=TEXT(J9," dd mmmmmmmm yyyy")&" ["&VLOOKUP(MONTH(J9),$N$2:$O$13,2,FALSE)&"]"	=RIGHT(K9,16)		8	Quarter 2
10	=TEXT(J10," dd mmmmmmmm yyyy")&' ["&VLOOKUP(MONTH(J10),$N$2:$O$13,2,FALSE)&"]"	=RIGHT(K1016)		9	Quarter 2
11	=TEXT(J11," dd mmmmmmmm yyyy")&' ["&VLOOKUP(MONTH(J11),$N$2:$O$13,2,FALSE)&"]"	=RIGHT(K1116)		10	Quarter 3
12				11	Quarter 3
13				12	Quarter 3
14					
15					
16					
17					
18					
19					
20					

Full end date

Text	Correct function	1 mark
Reference	Correct cell	1 mark
Space	Included after date	1 mark
Day portion	Correct format	1 mark
Month portion	Correct format	1 mark
Year portion	Correct format	1 mark
Concatenate	or &	1 mark
	"["	1 mark
Lookup	Function used	1 mark
Reference	Correct cell	1 mark
Range	Range from file	1 mark
Concatenate	or &	1 mark
	"]"	1 mark

A Candidate, ZZ999, 9999

Planning time for tasks

	A	B	C	D	E	F	G	H	I	J	K	L
1	Project completion	Start date	Day	Month	Year	Planning	Design	Creation	Event	End date	Full end date	Working
2	Event 8	15/02/2017	15	2	2017	36	72	60	14	16/08/2017	16 August 2017 [Quarter 2]	2017 [Quarter 2]
3	Event 5	01/12/2016	1	12	2016	45	45	72	14	26/05/2017	26 May 2017 [Quarter 1]	2017 [Quarter 1]
4	Event 10	01/04/2017	1	4	2017	3	4	10	7	25/04/2017	25 April 2017 [Quarter 1]	2017 [Quarter 1]
5	Event 9	02/03/2017	2	3	2017	6	12	8	1	29/03/2017	29 March 2017 [Quarter 4]	2017 [Quarter 4]
6	Event 4	30/11/2016	30	11	2016	36	28	42	7	23/03/2017	23 March 2017 [Quarter 4]	2017 [Quarter 4]
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8	Event 7	30/12/2016	30	12	2016	20	10	10	5	13/02/2017	13 February 2017 [Quarter 4]	2017 [Quarter 4]
9	Event 2	16/10/2016	16	10	2016	32	22	50	10	07/02/2017	07 February 2017 [Quarter 4]	2017 [Quarter 4]
10	Event 6	02/12/2016	2	12	2016	2	4	10	2	20/12/2016	20 December 2016 [Quarter 3]	2016 [Quarter 3]
11	Event 1	28/08/2016	28	8	2016	50	24	30	6	16/12/2016	16 December 2016 [Quarter 3]	2016 [Quarter 3]
12												
13	Completion dates during											
14	2016 [Quarter 1]	0										
15	2016 [Quarter 2]	0										
16	2016 [Quarter 3]	2										
17	2016 [Quarter 4]	0										
18	2017 [Quarter 1]	2										
19	2017 [Quarter 2]	1										
20	2017 [Quarter 3]	0										

Sorted
On end date with integrity   1 mark
Most recent at top   1 mark

Extract printed A1 to L20 fully visible   1 mark
Gridlines visible   1 mark

	A	B
13	Completion dates during	
16	2016 [Quarter 3]	2
18	2017 [Quarter 1]	2
19	2017 [Quarter 2]	1

Correct data extracted   1 mark
Correct cell range, fully visible, row &
column headings and gridlines   1 mark

Header –100% correct & printed as specified   1 mark

Corrected values used

	A	B	C	D	E	F	G	H	I	J	K	L
1	Project completion	Start date	Day	Month	Year	Planning	Design	Creation	Event	End date	Full end date	Working
2	Event 8	15/02/2017	15	2	2017	36	72	60	14	16/08/2017	16 August 2017 [Quarter 2]	2017 [Quarter 2]
3	Event 5	01/12/2016	1	12	2016	45	45	72	14	26/05/2017	26 May 2017 [Quarter 1]	2017 [Quarter 1]
4	Event 10	01/04/2017	1	4	2017	3	4	10	7	25/04/2017	25 April 2017 [Quarter 1]	2017 [Quarter 1]
5	Event 9	02/03/2017	2	3	2017	6	12	8	1	29/03/2017	29 March 2017 [Quarter 4]	2016 [Quarter 4]
6	Event 4	30/11/2016	30	11	2016	36	28	42	7	23/03/2017	23 March 2017 [Quarter 4]	2016 [Quarter 4]
7	Event 3	02/11/2016	2	11	2016	30	21	45	7	13/02/2017	13 February 2017 [Quarter 4]	2016 [Quarter 4]
8	Event 7	30/12/2016	30	12	2016	20	10	10	5	13/02/2017	13 February 2017 [Quarter 4]	2016 [Quarter 4]
9	Event 2	16/10/2016	16	10	2016	32	22	50	10	07/02/2017	07 February 2017 [Quarter 4]	2016 [Quarter 4]
10	Event 6	02/12/2016	2	12	2016	2	4	10	2	20/12/2016	20 December 2016 [Quarter 3]	2016 [Quarter 3]
11	Event 1	28/08/2016	28	8	2016	50	24	30	6	16/12/2016	16 December 2016 [Quarter 3]	2016 [Quarter 3]
12												
13	Completion dates during											
14	2016 [Quarter 1]	0										
15	2016 [Quarter 2]	0										
16	2016 [Quarter 3]	2										
17	2016 [Quarter 4]	5										
18	2017 [Quarter 1]	2										
19	2017 [Quarter 2]	1										
20	2017 [Quarter 3]	0										

Working
Correct 5 events changed   1 mark
With years changed from 2017 to 2016   1 mark
No changes to any other data (esp. Full end date)   1 mark

Correct values shown for count   1 mark

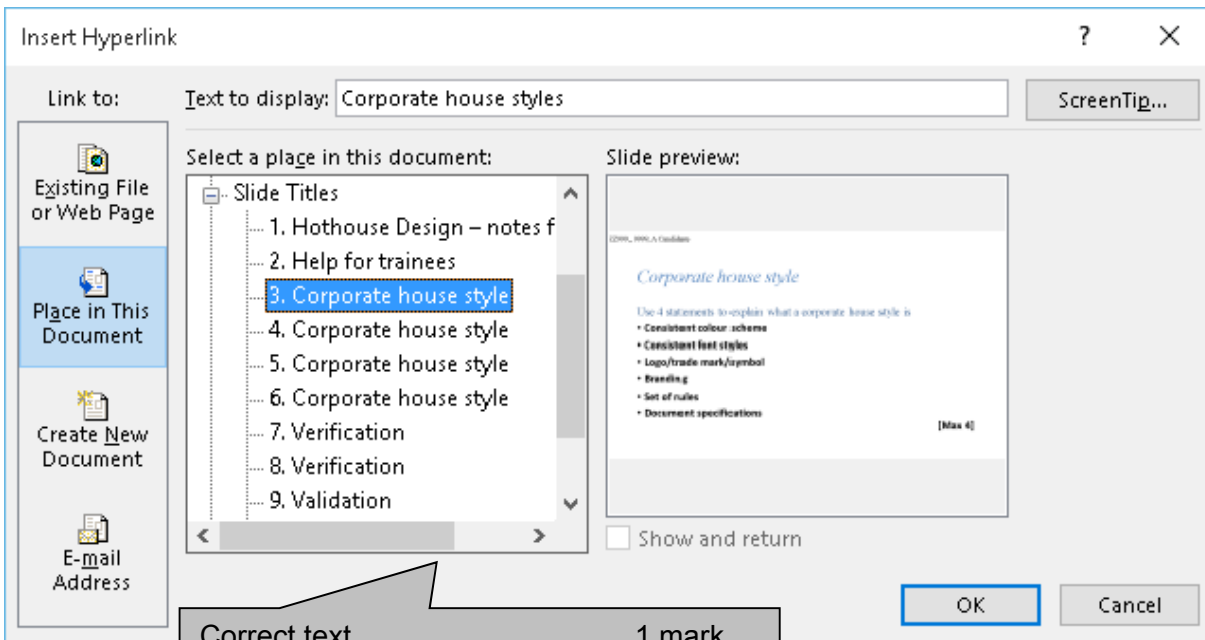Header 100% correct & printed as specified   1 mark

Corrected formulae and functions used

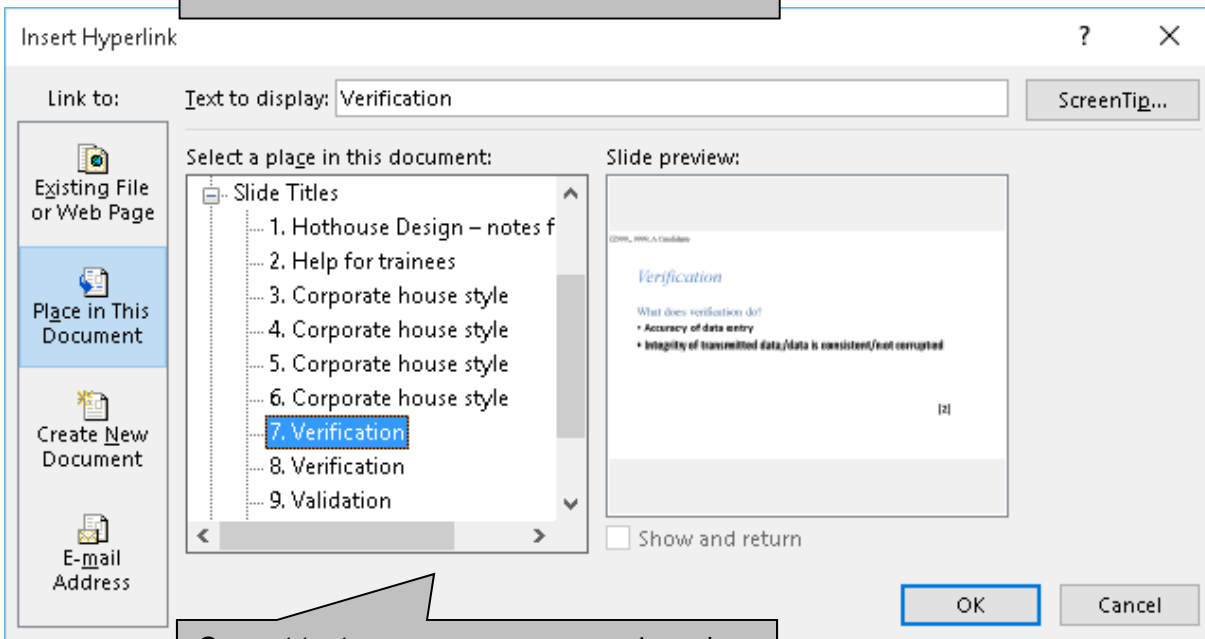|	L
1	**Working**
2	=IF(LEFT(RIGHT(K2,2),1)="4",TEXT(J2,"yyyy")-1&RIGHT(K2,12),RIGHT(K2,16))
3	=IF(LEFT(RIGHT(K3,2),1)="4",TEXT(J3,"yyyy")-1&RIGHT(K3,12),RIGHT(K3,16))
4	=IF(LEFT(RIGHT(K4,2),1)="4",TEXT(J4,"yyyy")-1&RIGHT(K4,12),RIGH
5	=IF(LEFT(RIGHT(K5,2),1)="4",TEXT(J5,"yyyy")-1&RIGHT(K5,12),RIGH
6	=IF(LEFT(RIGHT(K6,2),1)="4",TEXT(J6,"yyyy")-1&RIGHT(K6,12)
7	=IF(LEFT(RIGHT(K7,2),1)="4",TEXT(J7,"yyyy")-1&RIGHT(K7,12),R
8	=IF(LEFT(RIGHT(K8,2),1)="4",TEXT(J8,"yyyy")-1&RIGHT(K8,12),RIGH
9	=IF(LEFT(RIGHT(K9,2),1)="4",TEXT(J9,"yyyy")-1&RIGHT(K9,12),RIGH
10	=IF(LEFT(RIGHT(K10,2),1)="4",TEXT(J10,"yyyy")-1&RIGHT(K10,12),R
11	=IF(LEFT(RIGHT(K11,2),1)="4",TEXT(J11,"yyyy")-1&RIGHT(K11,12),R

Working
=IF () function	1 mark
Extracting quarter no (4 marks) e.g.:	
LEFT(,1)	1 mark
RIGHT(K2,2)	1 mark
="4"	1 mark
Corrected version if test true (@ marks)	
TEXT ()	1 mark
J2 abs reference	1 mark
"yyyy" format	1 mark
-1	1 mark
Concatenate or &	1 mark
=RIGHT()	1 mark
K2	1 mark
,12 characters	1 mark
Else if incorrect	
Same function as previous print	1 mark
Whole function	
Most efficient working solution	1 mark

Evidence document

Correct text…   1 mark
…Internal - to correct slide   1 mark

Correct text…   1 mark
…Internal - to correct slide   1 mark

Correct text…   1 mark
…Internal - to correct slide   1 mark

Correct text…   1 mark
…Web page   1 mark
…Correct URL   1 mark