**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.

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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**

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# 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**

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## Help for trainees

Select the topic you require
- **Corporate house styles**
- **Verification**
- **Validation**
- **Contact the office**

**Slide 3**

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*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**



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*Corporate house style*

2 ways a company could set up its house style are:
- Styles applied to all documents/website/vehicles/ advertising
- Style guides/document templates are used

[2]

**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 1 & Column A – Bold | 1 mark |
|---|---|
| Row 1 & Column A – Centre aligned | 1 mark |

Row 2 deleted       1 mark

Data in row 11 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 | | | | er 3] | 2016 [Quarter 3] |
| 8 | Event 7 | 30/12/2016 | 30 | 12 | 2016 | 20 | 10 | | | | 4] | 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 | | | | | | | | | | |

Dates 100% correct      1 mark

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | D | E | F | G | H | I | J | |
| 1 | | | | | | | | | | |
| 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) | =MON... | =YEAR(B10) | 6 | 12 | 8 | 1 | =SUM(B10,F10:I10) |
| 11 | Event 10 | 42826 | =DAY(B11) | | | | | | | (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 |

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**Working**

| =RIGHT() | 1 mark |
|---|---|
| K2 | 1 mark |
| ,16 characters | 1 mark |

Formulae and functions used

| | | L | M | N | O |
|---|---|---|---|---|---|
| 1 | Full end date | Working | | | |
| 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 |

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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] |
| 7 | Event 3 | 02/11/2016 | 2 | 11 | 2016 | 30 | 21 | 45 | 7 | 13/02/2017 | 13 February 2017 [Quarter 4] | 2017 [Quarter 4] |
| 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

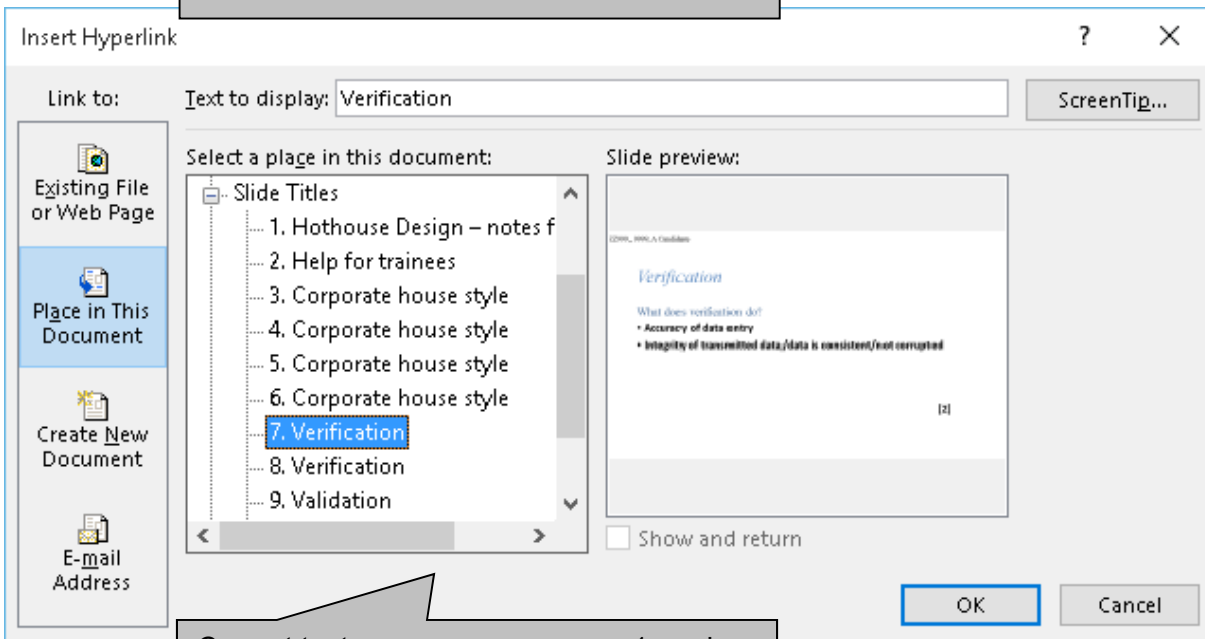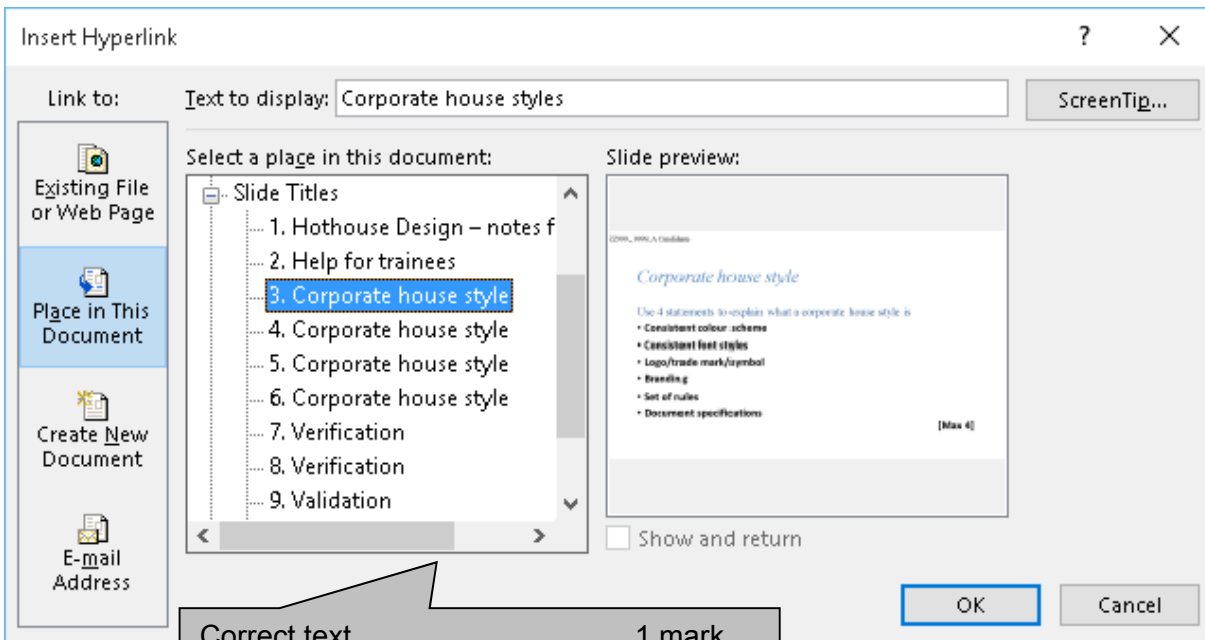| Header 100% correct & printed as specified | 1 mark |
|---|---|

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),RIGHT |
| 5 | =IF(LEFT(RIGHT(K5,2),1)="4",TEXT(J5,"yyyy")-1&RIGHT(K5,12),RIGHT |
| 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**