INFORMATION AND COMMUNICATION TECHNOLOGY **0417/03**

Paper 3 Practical Test B **October/November 2018**

MARK SCHEME

Maximum Mark: 80

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 2018 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

This document consists of **8** printed pages.

Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Evidence 1

Evaluation of stylesheet

4 from:

2x border-color are BGR not RGB	1 mark
colours missing # to show it is a hex value	1 mark
vertical-align value is incorrect and should be middle	1 mark
Efficient css as table and td defined together	1 mark
Border could be compressed for efficiency to border: 4px solid	1 mark

Evidence 2


```
table,td        { background-color: #000000;
                  border-width: 4px;
                  border-style: solid;
                  border-collapse: collapse;
                  text-align: center;
                  vertical-align: middle }

table           { border-color: #ff0000;
                  margin-left: auto;
                  margin-right: auto }

td              { border-color: #ff5733 }

h1              { color: #ffffff }

/* A Candidate ZZ999 9999 */
```

Stylesheet

table	border-color: #ff0000	1
td	border-color: #ff5733	1
table,td	vertical-align: middle	1
h1	color: #ffffff	1
comment	/* candidate details */ at end of style sheet	1

Evidence 3

1 The cascading stylesheets are part of the **Presentation** layer in website development.

2 Hyperlinks are an action in a web page and they are part of the **Content/Structure** layer.

3 The text and images of a web page are added to a web page in the **Content/Structure** layer.

4 An action like 'hover over' or 'on click' would be found in the **Behaviour/Scripting** layer.

1. Presentation	1
2. Content or Structure	1
3. Content or Structure	1
4. Behaviour or Scripting	1

Evidence 4

Browser	In browser with no letters vis	1
Table	Centre aligned in window	1
Top cell	Logo image	1
	White corners removed	1
Left cell	n183construct.png	1
Correct text	Added to right column rows 2–5	1
	In h1	1
Row 6	**Web page created by:** cand details in h1	1

Evidence 5

Head section		
Stylesheet	attached in head section	1
File name	table*candidatenumber.css*	1

Top row	Set to 130px high	1

Top cell	Set to 810px wide	1
	Colspan = 2	1
Image **ssslogo.png** in png format		1

Row 2	Left cell width:600px	1
	Left cell rowspan=4	1
	n183construct.png width **or** height:600px	1

Rows 2-5	Height:150px	1
	Right cell width:210px	1

Row 6	Height:80px and colspan 2 for td	1

```
<!DOCTYPE html>
<html>
 <head>
  <link rel="stylesheet" href="table9999.css" type="text/css">
 </head>
 <body>
   <table>
    <tr style="height:130px">

    <td style="width:810px" colspan="2"><img src="ssslogo.png" alt="Image
        of Sheila's Steel Sheds Logo">
    </td>
   </tr>

   <tr style="height:150px">

    <td rowspan=4 style="width:600px"><img src="n183construct.png"
        alt="Image of shed construction" width="600px" height="600px">
    </td>
    <td style="width:210px"><h1>Specialist Steel Sheds</h1>
    </td>
   </tr>

   <tr style="height:150px">
    <td style="width:210px"><h1>Aluminium Sheds</h1>
    </td>
   </tr>

   <tr style="height:150px">
    <td style="width:210px"><h1>Gallery</h1>
    </td>
   </tr>

   <tr style="height:150px">
    <td style="width:210px"><h1>About Us</h1>
    </td>
   </tr>

   <tr style="height:80px">
    <td style="width:810px" colspan="2"><h1>Web page created by: A
        Candidate ZZ999 9999</h1>
    </td>
   </tr>
   </table>
 </body>
</html>
```

A Candidate ZZ999 9999

	A	B	C	D	E	F	G	H	I	J	K	L
1					**Sheila's Steel Sheds**							
2												
3	*Cost of steel per square metre*	*Cost factor*										
4	$1.54	2.6										
5												
6	*Style*	*Length*	*Width*	*Wall height*	*Apex height*	*Floor area*	*Cubic capacity*	*Roof area*	*Surface area*	*Cost of materials*	*Sales price*	
7	Apex	1.8	2.0	2.0	2.4	3.60	7.920	3.88	27.88	$42.93	$120.00	
8	Brecon	2.0	2.0	2.0	2.4	4.00	8.800	4.31	29.11	$44.83	$120.00	
9	Castlemaine	2.4	2.0	2.0	2.4	4.80	10.560	5.17	31.57	$48.62	$130.00	
10	Dove	2.0	2.4	2.0	2.7	4.80	11.280	5.56	34.44	$53.03	$140.00	
11	Eagle	2.4	2.4	2.0	2.7	5.76	13.536	6.67	37.15	$57.21	$150.00	
12	Falcon	2.8	2.4	2.0	2.7	6.72	15.792	7.78	39.86	$61.38	$160.00	
13	Graphite	3.0	2.0	2.0	2.4	6.00	13.200	6.46	35.26	$54.30	$150.00	
14	Hitone	3.0	2.4	2.0	2.7	7.20	16.920	8.34	41.22	$63.47	$170.00	Extra Large
15	Iceberg	2.0	2.8	2.0	3.1	5.60	14.280	7.12	40.60	$62.53	$170.00	
16	Jupiter	2.4	2.8	2.0	3.1	6.72	17.136	8.55	43.63	$67.18	$180.00	
17	Kenya	2.8	2.8	2.0	3.1	7.84	19.992	9.97	46.65	$71.84	$190.00	Extra Large
18	Lima	4.0	3.0	2.1	3.4	12.00	33.000	15.88	61.78	$95.14	$250.00	Extra Large
19	Mascot	1.8	2.0	1.8	2.2	3.60	7.200	3.88	25.56	$39.36	$110.00	

5 new rows inserted	1
Row 1	
Large sans-serif font 100% accurate	1
Cells A1–K1 merged and centre aligned	1
Grey background	1
Row 3	
Double height with text wrap	1
Rows 3 and 6	
Bold and italic font	1
Rows 2 and 5	
½ of row 6 height	1

Formatting	
Columns BCDE 1dp	1
Columns FHI 2dp	1
Column G 3dp	1
Cell A4 and columns JK in $ to 2dp	1
Sheet	
Single page and fully visible	1

F7	=B7*C7	1

G7	E7+D7	1
	Inside brackets	1
	*F7	1
	/2 (on either element)	1

H7	2*	1
	B7*	1
	SQRT(…)	1
	Brackets around two (indexed) brackets	1
	C7/2	1
	Bracketed	1
	^2	1
	+	1
	E7-D7	1
	Bracketed and ^2	1

A Candidate ZZ999 9999

Sheila'

	A	B	C	D	E	F		
1								
2								
3	Cost of steel per square metre	Cost factor						
4	1.54	2.6						
5								
6	Style	Length	Width	Wall height	Apex height	Floor area	Cubic capacity	Roof area
7	Apex	1.8	2	2	2.4	=B7*C7	=(E7+D7)*F7/2	=2*B7*SQRT((C7/2)^2+(E7-D7)^2)
8	Brecon	2	2	2	2.4	=B8*C8	=(E8+D8)*F8/2	=2*B8*SQRT((C8/2)^2+(E8-D8)^2)
9	Castlemaine	2.4	2	2	2.4	=B9*C9	=(E9+D9)*F9/2	=2*B9*SQRT((C9/2)^2+(E9-D9)^2)
10	Dove	2	2.4	2	2.7	=B10*C10	=(E10+D10)*F10/2	=2*B10*SQRT((C10/2)^2+(E10-D10)^2)
11	Eagle	2.4	2.4	2	2.7	=B11*C11	=(E11+D11)*F11/2	=2*B11*SQRT((C11/2)^2+(E11-D11)^2)
12	Falcon	2.8	2.4	2	2.7	=B12*C12	=(E12+D12)*F12/2	=2*B12*SQRT((C12/2)^2+(E12-D12)^2)
13	Graphite	3	2	2	2.4	=B13*C13	=(E13+D13)*F13/2	=2*B13*SQRT((C13/2)^2+(E13-D13)^2)
14	Hitone	3	2.4	2	2.7	=B14*C14	=(E14+D14)*F14/2	=2*B14*SQRT((C14/2)^2+(E14-D14)^2)
15	Iceberg	2	2.8	2	3.1	=B15*C15	=(E15+D15)*F15/2	=2*B15*SQRT((C15/2)^2+(E15-D15)^2)
16	Jupiter	2.4	2.8	2	3.1	=B16*C16	=(E16+D16)*F16/2	=2*B16*SQRT((C16/2)^2+(E16-D16)^2)
17	Kenya	2.8	2.8	2	3.1	=B17*C17	=(E17+D17)*F17/2	=2*B17*SQRT((C17/2)^2+(E17-D17)^2)
18	Lima	4	3	2.1	3.4	=B18*C18	=(E18+D18)*F18/2	=2*B18*SQRT((C18/2)^2+(E18-D18)^2)
19	Mascot	1.8	2	1.8	2.2	=B19*C19	=(E19+D19)*F19/2	=2*B19*SQRT((C19/2)^2+(E19-D19)^2)

I7		
2*	1
D7*	1
(B7+C7)	1
+	1
C7*(E7+D7)	1
+H7	1

J7		
I7 with relative ref	1
A4 with abs ref	1

K7		
=ROUNDUP(…)	1
J7* with relative ref	1
B4 with abs	1
,-1 (to nearest 10)	1

L7		
=IF(…)	1
AND(…)	1
G7>14	1
,F7>7	1
,"Extra Large",""	1

		Surface area	Cost of materials	Sales price	
1	**he** **s**				
2					
3					
4					
5					
6		*Surface area*	*Cost of materials*	*Sales price*	
7	=2*D7*(B7+C7)+C7*(E7+D7)+H7		=I7*A4	=ROUNDUP(J7*B4,-1)	=IF(AND(G7>14,F7>7),"Extra Large","")
8	=2*D8*(B8+C8)+C8*(E8+D8)+H8		=I8*A4	=ROUNDUP(J8*B4,-1)	=IF(AND(G8>14,F8>7),"Extra Large","")
9	=2*D9*(B9+C9)+C9*(E9+D9)+H9		=I9*A4	=ROUNDUP(J9*B4,-1)	=IF(AND(G9>14,F9>7),"Extra Large","")
10	=2*D10*(B10+C10)+C10*(E10+D10)+H10		=I10*A4	=ROUNDUP(J10*B4,-1)	=IF(AND(G10>14,F10>7),"Extra Large","")
11	=2*D11*(B11+C11)+C11*(E11+D11)+H11		=I11*A4	=ROUNDUP(J11*B4,-1)	=IF(AND(G11>14,F11>7),"Extra Large","")
12	=2*D12*(B12+C12)+C12*(E12+D12)+H12		=I12*A4	=ROUNDUP(J12*B4,-1)	=IF(AND(G12>14,F12>7),"Extra Large","")
13	=2*D13*(B13+C13)+C13*(E13+D13)+H13		=I13*A4	=ROUNDUP(J13*B4,-1)	=IF(AND(G13>14,F13>7),"Extra Large","")
14	=2*D14*(B14+C14)+C14*(E14+D14)+H14		=I14*A4	=ROUNDUP(J14*B4,-1)	=IF(AND(G14>14,F14>7),"Extra Large","")
15	=2*D15*(B15+C15)+C15*(E15+D15)+H15		=I15*A4	=ROUNDUP(J15*B4,-1)	=IF(AND(G15>14,F15>7),"Extra Large","")
16	=2*D16*(B16+C16)+C16*(E16+D16)+H16		=I16*A4	=ROUNDUP(J16*B4,-1)	=IF(AND(G16>14,F16>7),"Extra Large","")
17	=2*D17*(B17+C17)+C17*(E17+D17)+H17		=I17*A4	=ROUNDUP(J17*B4,-1)	=IF(AND(G17>14,F17>7),"Extra Large","")
18	=2*D18*(B18+C18)+C18*(E18+D18)+H18		=I18*A4	=ROUNDUP(J18*B4,-1)	=IF(AND(G18>14,F18>7),"Extra Large","")
19	=2*D19*(B19+C19)+C19*(E19+D19)+H19		=I19*A4	=ROUNDUP(J19*B4,-1)	=IF(AND(G19>14,F19>7),"Extra Large","")

Replication	1
Formulae printout, landscape, fully visible	1
Row and column headings visible	1