INFORMATION TECHNOLOGY **9626/02**

Paper 2 Practical **May/June 2017**

MARK SCHEME

Maximum Mark: 110

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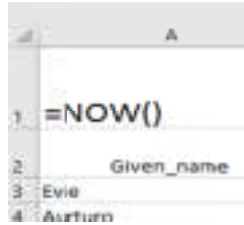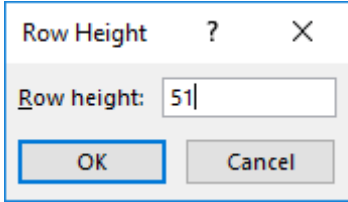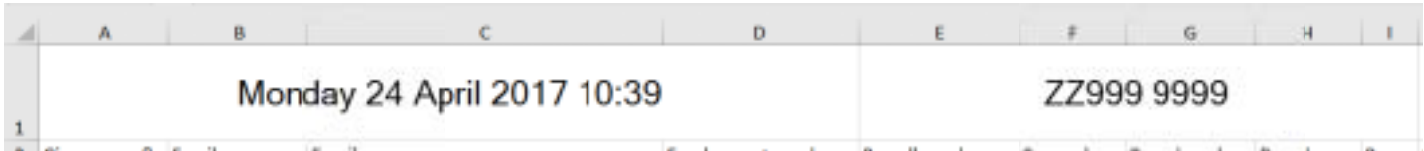
Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2017 series for most Cambridge IGCSE®, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

This document consists of **9** printed pages.

Task 1a

1a	
Insert row – 51 pt	1
Merged A–D	1
Date & Time inserted and Format as shown	1
Merged E–I	1
Candidate numbers	1
18pt Sans serif font	1
6	

1b
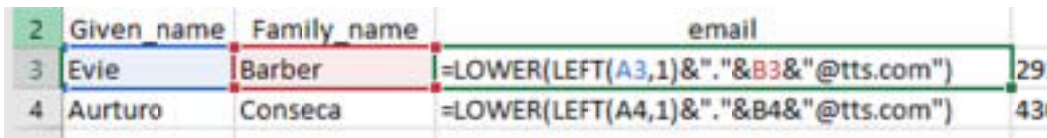
1b	
Left (A3,1)	1
&"."&	1
B3	1
&"@tts.com"	1
Lower()	1
5	

1c

Describe the problem with generating the email addresses
Duplicates can be generated

[1]

Describe a method to automatically detect this problem
Use conditional formatting and highlight duplicate values Any valid

[1]

Give an example of an email address that is affected.
Rhys   Manning   r.manning@tts.com Roger   Manning   r.manning@tts.com

[1]

Suggest a method of correcting this address
Manually change address by adding a number or a letter

[1]

Place screenshots of the corrected email addresses.
30   Roger   Manning   ro.manning@tts.com
13   Rhys   Manning   r.manning@tts.com
107   Hatas   Imre   h.imre@tts.com
120   Hajnalka   Imre   hj.imre@tts.com

[3]

1c	
Duplicates possible	1
Method to identify	1
Examples found	1
Suggested solution	1
4	

1c	
Example of solution	1
Rhys/Roger Corrected	1
Imre(S) Corrected	1
3	

1d

2	Given name	Family name	Email	Employ	Payroll number		Pay scale	Branch code	B
3	Evie	Barber	e.barber@tts.com	2914	=UPPER(LEFT(A3,1)&LEFT(B3,2))&D3&TEXT(G3,"000")		C3	32	A
4	Aurturo	Conseca	a.conseca@tts.com	4300	=UPPER(LEFT(A4,1)&LEFT(B4,2))&D4&TEXT(G4,"000")		B1	32	A

=UPPER(LEFT(A3,1)&LEFT(B3,2))&D3&TEXT(G3,"000")

1d		
Upper()		1
Left (A3,1)		1
&Left(B3,2)		1
&D3&		1
TEXT() or	Nested IF()	1
G3	(and Works)	1
,"000"	(max 2/3)	1
7		

1e

Pay
=VLOOKUP(LEFT(F3,1),TTSPay_Scales.xlsx!$A$2:$J$8,MATCH(VALUE(RIGHT(F3,1)),TTSPay_Scales.xlsx!$A$2:$J$2,0),0)

1e	
Vlookup()	1
Left(F3,1)	1
Full Range	1
Final ,0	1
4	

1e	
Match()	1
Right()	1
(F3,1)	1
Range Top row	1
,0	1
5	

	A	B	C	D	E	F	G	H	I
1	Given_name	Family_name	email	Employment number	Payroll number	Pay Scale	Branch Code	Branch	Pay
2	Evie	Barber	e.barber@tts.com	2914	EBA2914032	C3		32 Antwerp	€ 28,400
3	Aurturo	Conseca	a.conseca@tts.com	4300	ACO4300032	B1		32 Antwerp	€ 26,000

1e
Euros & 0 d.p.
1

1f

2	Given ▾	Family ▾	Email ▾	Employn ▾	Payroll n
12	Joel	Knight	j.knight@tts.com	9875	JKN9875C
59	Harumi	Valencia	h.valencia@tts.com	4440	HVA4440
105	Endre	Mekek	e.mekek@tts.com	7395	EME7395

Antwerp Total	=SUBTOTAL(109,I3:I19)
Antwerp Average	=SUBTOTAL(101,I3:I19)

Antwerp Total	=SUBTOTAL(9,I3I19)
Antwerp Average	=SUBTOTAL(1,I3I19)

1f	
Efficient subtotal formula	1
Efficient averages	1
Correct Subtotals	1
Correct averages	1
All branches subtotalled	1
5	

1f		
Filter **out** Es (no deletion)		
1		

Antwerp Total	€	452,100
Antwerp Average	€	28,256
Marseille Total	€	456,300
Marseille Average	€	28,519
Porto Total	€	270,700
Porto Average	€	30,078
Barcelona Total	€	289,800
Barcelona Average	€	28,980
Gdansk Total	€	559,700
Gdansk Average	€	27,985
Naples Total	€	451,100
Naples Average	€	30,073
Split Total	€	322,400
Split Average	€	29,309
Tirana Total	€	484,300
Tirana Average	€	28,488
Amsterdam Total	€	584,500
Amsterdam Average	€	29,225
Hamburg Total	€	392,700
Hamburg Average	€	28,050

1g

Total Pay	Antwerp	=TTSMerge2.xlsx!$I$19
	Marseille	=TTSMerge2.xlsx!$I$37
	Porto	=TTSMerge2.xlsx!$I$48
	Barcelona	=TTSMerge2.xlsx!$I$61
	Gdansk	=TTSMerge2.xlsx!$I$83
	Naples	=TTSMerge2.xlsx!I100
	Split	=TTSMerge2.xlsx!I114
	Tirana	=TTSMerge2.xlsx!I133
	Amsterdam	=TTSMerge2.xlsx!I155
	Hamburg	=TTSMerge2.xlsx!I171
Average Pay	Antwerp	=TTSMerge2.xlsx!$I$20
	Marseille	=TTSMerge2.xlsx!$I$38
	Porto	=TTSMerge2.xlsx!$I$49
	Barcelona	=TTSMerge2.xlsx!$I$62
	Gdansk	=TTSMerge2.xlsx!$I$84
	Naples	=TTSMerge2.xlsx!I101
	Split	=TTSMerge2.xlsx!I115
	Tirana	=TTSMerge2.xlsx!I134
	Amsterdam	=TTSMerge2.xlsx!I156
	Hamburg	=TTSMerge2.xlsx!I172

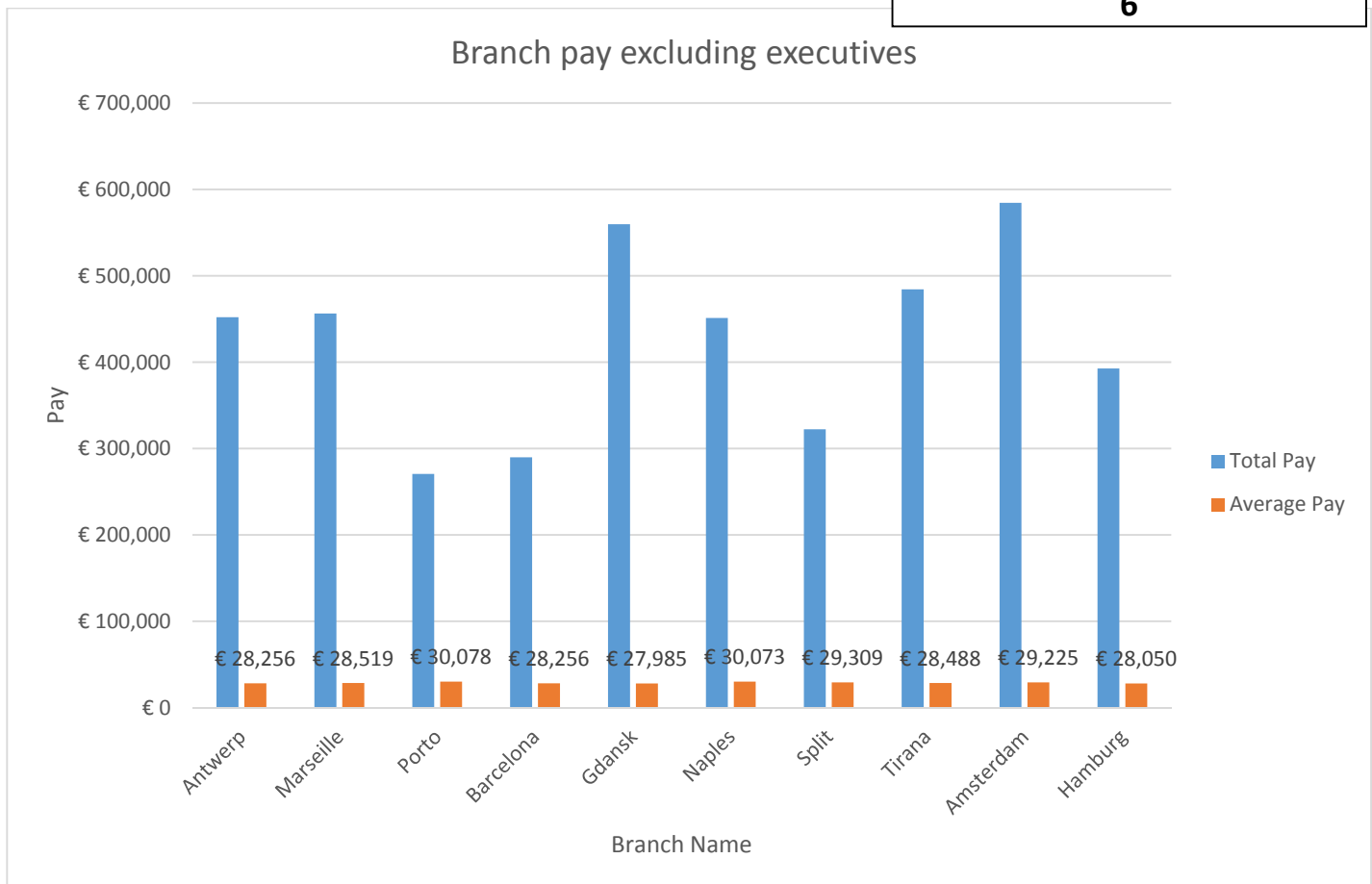| 1g	
All branch totals shown	1
Branches Total linked to TTSMerge	1
All branch averages shown	1
Branches Averages linked to TTSMerge	1
4	

1h

1h	
Total Bars	1
Average bars	1
Average data labels	1
Appropriate title	1
Appropriate axes labelled	1
Appropriate legend	1
6	

Branch pay excluding executives

Branch	Average Pay
Antwerp	€ 28,256
Marseille	€ 28,519
Porto	€ 30,078
Barcelona	€ 28,256
Gdansk	€ 27,985
Naples	€ 30,073
Split	€ 29,309
Tirana	€ 28,488
Amsterdam	€ 29,225
Hamburg	€ 28,050

Legend: ■ Total Pay ■ Average Pay

Y-axis: Pay (€ 0 to € 700,000)
X-axis: Branch Name

Task 1i

What is the difference between a spreadsheet function and a spreadsheet formula?

A function is a built in calculation or operation
A formula is entered by a user and may consist of several functions and operations

[2]

Give an example of each from your TTSMerge file.

| Example of a function: =SUBTOTAL(109,I3:I19)   - any valid |
|---|
| Example of a formula: =LOWER(LEFT(A3,1)&"."&B3&"@tts.com")   - any valid |

[2]

Task 2

16:19 -1280 x 720	1	Jan-18 Caption	1	Leaves clip	1
Correct transitions	1	2 secs	1	Trimmed	1
Title clip	1	Same position	1	5secs	1
4 secs	1	Both White	1	A chance to ….Caption	1
Protecting Nature Caption	1	Both 48pt	1	Same font	1
2 secs	1	Both Sans-Serif	1	Same position	1
Centred	1				

Flowers clip	1	Bee clip	1	January 2018 caption	1
Trimmed	1	Correct trim	1	Remainder of clip	1
7 secs	1	London Caption	1	Black	1
An international…Caption	1	After 1 sec	1	Same font – 48pt	1
Same font	1	3 secs	1	Position(Both)	1
Same position	1				

		35

Task 3
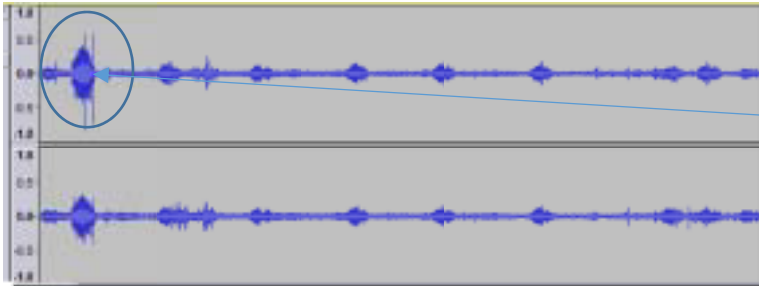
Monophonic	1
Trim moo	1
Amplify	1
…not clipped	1
4	
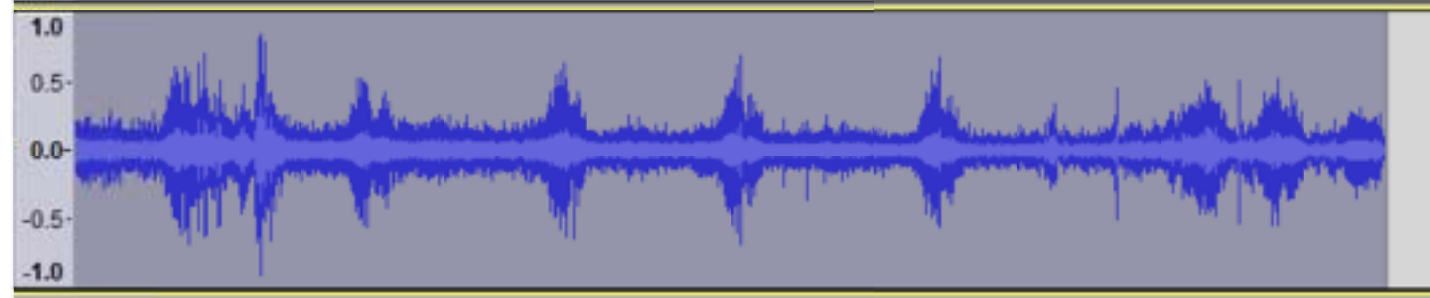
Noise reduced	1
Trim length	1
Match duration	1
3	
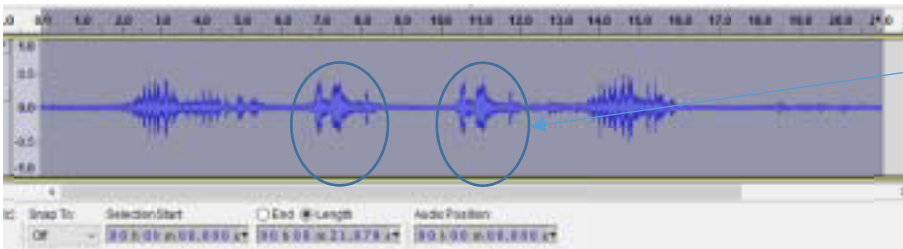
Dovecall x2 inserted	1
…Placement in quiet	1
…Track same length	1
3	

Soundtrack saved as Soundtrack128.mp3 at 128kbs	1
Soundtrack added to movie	1

[2]

Task 3b

Enter the size of the DoveCall128.mp3 file	*27 KB*
Enter the size of the DoveCall256.mp3 file	*54 KB*
Enter the size of the DoveCall.wav file	*140 KB*

[3]

Explain the difference in these file sizes.

DoveCall128.mp3 is a compressed file exported with a bit rate of 128 kbps.

DoveCall256.mp3 is a compressed file exported with a higher bit rate so more data is saved and the file is bigger.

DoveCall.wav is the original unprocessed recording so all the data is saved resulting in the biggest file size.

[3]

Give an advantage of each of the two file types.

All the data is preserved in a .WAV file so processing can be carried out on the original recording.

.MP3 files are compressed so file sizes are smaller.

[2]