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Cambridge Assessment International Education
Cambridge International Advanced Subsidiary and Advanced Level

INFORMATION TECHNOLOGY **9626/04**

Paper 4 Advanced Practical **March 2018**

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.

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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.

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		Mark
Task 1	Size of the animation is set to 512 by 288 pixels	**1**
	The top half of background is pale blue	**1**
	The bottom half of background is pale green	**1**
	TheTree.png image is set at left side of frame as shown	**1**
	Only the background and the tree appear for the first 2 seconds	**1**
	The letter T image enters from top left of frame	**1**
	The letter T image bounces twice on the pale green area	**1**
	The letter T image stops at right side of the tree in the pale blue area	**1**
	The letter T image is correctly aligned when stopped	**1**
	The letter T image rotates clockwise twice during the bounce animation	**1**
Animation	The letter T image follows the correct path in front of the tree	**1**
	The animation of the letter T image is smooth	**1**
	The timing for the letter T animation is 3 seconds	**1**
	The "Treeside" text appears at right of tree in blue area – smoothly	**1**
	The letter T image is used for the ‘T’ in Treeside	**1**
	The text is black and 28pt	**1**
	The text "Holidays" appears below "Treeside" aligned as shown	**1**
	All the text appears a letter at a time	**1**
	The timing for all the text appearing is 5 seconds	**1**
	The whole animation is 10 seconds in length	**1**
	The animation is set to loop	**1**
	The animation is exported in a suitable format for use in a browser	**1**
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		Mark
1(b)	***Up to 4 marks for covering:***	
	Allows an image to be changed into another image	**1**
	Use of key frames	**1**
	Generating intermediate frames between two images. – Key Frames	**1**
	Give the appearance that the first image evolves smoothly into the second image.	**1**
		4

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		Mark
Task 2	Concatenate formula is used in AccommodationID column of "Prices" worksheet	**1**
	A valid concatenation of Type, Bedrooms, Style is produced	**1**
	The formula is replicated for all of the list	**1**
	A "Holiday quote" table is set up as shown in a new worksheet in the same workbook	**1**
	A validated list is set up in cell B1	**1**
	The list in B1 contains only the option to select a single instance of "Apartment" or " Villa"	**1**
	A validated list is set up in cell B3	**1**
	The validation is set to whole numbers >=1 and <=4	**1**
	A suitable error alert message is set for the validation	**1**
	A validated list is set up in cell B5	**1**
	The list in B5 contains only the option to select a single instance of "Standard" or "Luxury"	**1**
	A validated list is set up in cell B7	**1**
	The validation is set to whole numbers >=1 and <=21	**1**
	A suitable error alert message is set for the validation	**1**
	The criteria for a discount is set with the correct criteria e.g. B7>7,	**1**
	An efficient method such as a VLOOKUP() formula is used to determine the cost from the prices worksheet	**1**
	The lookup value is concatenation of cells B1, B3 and B5	**1**
	The table array is set as "prices.csv!A2:E17"	**1**
	The column index value is set as 5	**1**
	The FALSE parameter is added	**1**
	The cost is multiplied by the number of nights (the contents of cell B7)	**1**
	An IF(TRUE) condition used to apply a discount bookings greater than 7 nights e.g. the cost is multiplied by 0.9 or 10% subtracted	**1**
	No discount is applied for the IF(FALSE) condition	**1**
	The values "Villa, 3, Standard, 10 nights" give the result $1440 other test values give correct results	**1**
	Holiday quote values are formatted to $ with 0 dp	**1**
		25

Spreadsheet

Valid alternative methods

multiple IF() statements
Correct Logical_tests
Correct Values_if_True
Correct Values_if_False

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		Mark
2(b)	***Up to 6 marks for covering:***	**1**
	Specific spreadsheet modelling tools such as: the use of in-built functions, creation of formulae and What-if questions, variables and criteria Graphs and charts	**1** **1**
	With advantages such as: automatic recalculation Mathematics and logic opaque to user Varied scenarios can be tested Visual representations aid analysis of data	**1** **1** **1**
	With disadvantages such as: Need skill to create models Results can be accepted unquestioned Errors can be compounded Valid descriptions of other of modelling or simulation examples	**1**
		6

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		Mark
Task 3	The Customer file has been used for the recipient data for the merge	**1**
	Evidence of the selection of only the recipients on the mailing list	**1**
	An automated Date is inserted in the correct place…	**1**
	… in correct format (dd.mm.yyyy)	**1**
	The customer forename mergefield is inserted in the correct place	**1**
	The customer surname mergefield is inserted in the correct place	**1**
	There is a space between the forename and the surname	**1**
	All the address fields are inserted in the correct place	**1**
	… there is only one address field on each line	**1**
	The customer forename mergefield is inserted in the salutation with correct spacing and punctuation	**1**
	IF statements are used for the conditional text	**1**
	A valid conditional criterion for 1st Accommodation_type e.g. = “Apartment” is used	**1**
	The correct text for customers interested in renting an apartment is inserted	**1**
	A valid conditional criterion for 2nd Accommodation_type e.g. = “Villa” is used	**1**
	A valid conditional criterion for Accommodation_ style e.g. = “Standard” or "Luxury" is used	**1**
	The correct text for customers interested in renting a standard villa is inserted	**1**
	The correct text for customers interested in renting a luxury villa is inserted	**1**
	The conditional mergefields are within a single nested IF_The_Else statement	**1**
	The conditional mergefields are displayed 12pt in a serif font	**1**
	There is valid evidence of the exclusion of Lucy Walters & Joseph Scofield from the recipients	**1**
	There are 18 merged letters	**1**
	Maisie King has the correct text for a standard apartment	**1**
	Ethan Campbell has the correct text for a standard villa	**1**
	Adil Thomson has the correct text for a luxury villa	**1**
	All the merged letters are proof read and have suitable layout and punctuation	**1**
Mail merge		
		25

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		Mark
Task 4	<Script > tags are added	**1**
	The <Script> tags are paired, valid and enclose the added code	**1**
	A function has been created for the 'Generate Username' button	**1**
	Suitable variable(s) have been created for the names and the 'dob' string	**1**
	The 'dob string is manipulated to use only last 4 characters	**1**
	The forename component of the username is output when the button is clicked	**1**
	The surname component of the username is output when the button is clicked	**1**
	The year of birth component of the username is output when the button is clicked	**1**
	The forename, surname and year components are concatenated correctly when the button is clicked	**1**
	The username is displayed below the 'Generate Username' button	**1**
JavaScript	// programmer comments are added to the "Generate Username" function section of the code	**1**
	A function has been created for the 'Submit Password' button	**1**
	A variable created for the 1st password entry or password1.value is used in the comparison	**1**
	A variable created for the 2nd password entry or password2.value is used in the comparison	**1**
	An if_else statement used for the decision	**1**
	A valid comparison e.g. (==) condition is used to see if password match/do not match	**1**
	The correct text is output if passwords match	**1**
	The correct text is output if passwords do not match	**1**
	The resultant text is output to a separate page	**1**
	// programmer comments are added to the "Submit Password" function section of the code	**1**
		20

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		Mark
4(b)	***Up to 4 marks covering:***	**1**
	Functions are a set of instructions/statements – subprogram Functions are assigned a name similarly to a variable A function performs a task or calculates a value Functions are "Called" – executed by name Values can be passed to a function Functions can return values Functions can be called repeatedly when task or value is required Thus simplifying code or making code more efficient There are many Function/Methods built in to Javascript	**1** **1** **1** **1**
		4

4(c)	word.length answer = 14	**1**
	word.slice(8,11) answer = maz	**1**
	word.charAt(3) answer = " " – space	**1**
	word.substr(7,7) answer = amazing	**1**
		4