MARK SCHEME for the March 2016 series

9713 APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY

9713/04   Paper 4 (Practical Test B), maximum raw mark 90

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 March 2016 series for most Cambridge IGCSE® and Cambridge International A and AS Level components.

Task					Mark
1	**(a)**	Model costs, selling prices and profit	Enter formulae for calculating income and profit	Correct income formula inserted	1
				Correct profit formula inserted	1
	(b)		Format Costs, Prices and Sales	Cost, selling price, income & profit formatted as currency (£)	1
				Sales formatted as integer	1
	(c)		Model break-even selling price with advertising set at £5k	Correct values inserted for Annual costs	1
				Evidence of efficient method used (e.g. Goal Seek)	1
				Correct settings and entries	1
				Correct results for selling price displayed	1
	(d)		Model break-even selling price with advertising set at £8k	Advertising set to £8000	1
				Correct results for selling price displayed	1
	(e)		Model manufacturing costs with selling price set at £2	Correct entry for selling price	1
				Correct result for manufacturing costs displayed	1
					[12]

2	Present the results of financial modelling to specified recipients in a mail merge memo	Insert mergefields and text as specified	GivenName (space) Surname mergefields inserted	1
			Job_title mergefield inserted on a newline	1
			Date inserted as a field and in correct format **(DD:MM:YY)**	1
			The Earbud Project inserted as memo subject	1
		Insert specified data linked to spreadsheet	Evidence of link to Cost per earbud value	1
			Correct range used **(R10:C4)**	1
			Evidence of link to annual costs data	1
			Correct **named** range used **(Annual_Costs)**	1
		Use conditional field to insert specified text and linked data from spreadsheet	Correct conditional field inserted	1
			Correct criteria applied	1
			Correct conditional text (1) inserted	1
			Correct conditional text (2) inserted	1
			Evidence of link to calculations data seen	1
			Correct **named** range used **(Calculations)**	1
		Non-manual selection of recipients	Evidence of efficient selection of recipients provided	1
		Letters to specified recipients merged	Memo to Ellis printed	1
			Memo to Kieran printed	1
			Memo to Samantha printed	1
			Memo to Mia printed	1
			Memo to Noah printed	1
		Merged letters proofed for accuracy	**ALL and Only** these memos printed	1
			Correct job titles for recipients seen	1
			Correct inclusions for memos seen	1
				[23]

3	(a)	Extend the financial model to determine maximum possible profit	Set validation rule for advertising cost entries	Evidence of validation rule used provided	1
				Evidence of correct limiting values provided	1
				Appropriate input message seen	1
				Appropriate error message seen	1
			Modify spreadsheet as required including adjustment of relative/absolute referencing necessary for valid replication	Correct selling price formula inserted	1
				Valid replication of selling price formula	1
				Correct sales formula with correct absolute/relative references seen	1
				Valid replication of sales formula	1
				Correct income formula with correct absolute/relative references seen	1
				Valid replication of income formula	1
				Correct profit formula with correct absolute/relative references seen	1
				Valid replication of profit formula	1
			Display values for completed financial model	Correct manufacturing cost (£1.25) inserted	1
				Table displayed as shown in the example	1
				Selling prices displayed as shown in the example	1
				Correct values shown in 1st line of the table	1
				Correct values shown after replication	1
					[17]

	(b)	Display the results of the extended model in a chart	Appropriate chart selected	Line graph chosen for both series	1
			Display profit data series	Correct profit data used	1
				Selling prices used as horizontal axis	1
			Display sales data series	Correct sales data used	1
				Secondary axis displayed	1
			Add contextual information to chart	Valid chart title inserted	1
				Valid horizontal axis title inserted	1
				Valid vertical axis title inserted	1
				Valid secondary axis title inserted	1
				Legend or equivalent displayed	1
					[10]

4		Display the modelling results in a presentation	Set up presentation as specified	Master slide items inserted as specified	1
				Full slides printed	1
				Correct titles and text inserted	1
			Display model and add contextual information	Table displayed on slide 2	1
				Correct advertising value shown	1
				Correct maximum selling price seen	1
				Valid maximum selling price indicated	1
				Corresponding maximum profit indicated	1
				Appropriate text inserted in "Callouts"	1
			Display chart and add indication of maximum profit	Chart displayed on slide 3	1
				Correct vertical line inserted	1
					[11]

5	(a)	Create a relational database	Provide evidence of import specification and data structures	Evidence of valid method for import provided	1
				Correct data structure for Headphone Data table shown	1
				Correct data structure for HeadphonesTested table shown	1
					[3]

	(b)	Select and display specified data	Create a report on selected data displayed and formatted as specified	Correct report title inserted	1
				Required labels and data all visible and displayed on a single page	1
				Data grouped by "Open/Closed" field	1
				Data grouped by "Over/On-ear" field	1
				Correct data displayed in ascending order	1
				Candidate details displayed in **page** (not report) footer	1
					[6]

(c)	Select data to be included in a memo merged to specified recipients	Insert mergefields data and text as specified	Correct mergefields and date field inserted	1
			Correct fields and data displayed in a table	1
		Use a conditional field to insert correct text	Conditional field inserted with correct criteria	1
			Correct conditional text (1) inserted	1
			Correct conditional text (2) inserted	1
		Provide evidence of non-manual selection of recipients	Evidence of efficient selection method for Studio department	1
			Evidence of efficient selection method for Head & Technicians only	1
		Merged memos proofed for accuracy	4 memos to correct recipients printed	1

[8]

Total marks **[90]**