
APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY

9713/04

Paper 4 Practical Test B

October/November 2016

MARK SCHEME

Maximum Mark: 90

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 October/November 2016 series for most Cambridge IGCSE[®], Cambridge International A and AS Level components and some Cambridge O Level components.

Task				Mark	
1a	Evidence of correct analysis of data and setup of the database	Set up database	Individual tables match the contents of the files provided with correct primary keys set	All .csv files are imported as individual tables	1
		Primary keys		The Member table has member_number as primary key	1
				The Classes table has class_number as primary key	1
				The Trainer table has trainer_number as primary key	1
		Data types	Correct data types for important fields	Classes table: class_date = date/time	1
				Classes table: class_cost = currency	1
				Member table: date_of_birth = date/time	1
				Member table: height & weight = Number	1
				Member table: mailing list = Boolean	1
		Relationships	One to Many relationships created (Can mark from relationship diagram if ∞ seen)	Members table to Bookings table on member_number	1
				Classes table to Bookings table on class_number	1
				Trainer table to Classes table on trainer_number	1
		Calculated field	BMI calculation (Must be in Members table)	A calculated field is added to member table	1
				The BMI is calculated correctly Weight/Height*Height	1
				The BMI is set to display as a number to 1 decimal place	1
					15

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1b	Print memos to trainers of Cardio or Weight Loss classes providing the BMI information for each member of the class	Fitness Prog. selection	Database query (Non-manual, not in document)	Evidence of Query used for selection provided	1
				...selection of Members	1
				The required fields are present includes member_number, forename,surname, fit.prog, BMI	1
				The fitness_programme criteria are set to Cardio Or Weight Loss	1
		Trainer speciality selection	Database query (Non-manual, not in document)	Evidence of selection of trainers (as a separate query) provided	1
				... the criteria for Trainer specialty includes Weight Loss	1
				... the criteria for trainer specialty has wildcard for *cardio*	1
			Document filter or use of SkipIf is acceptable	The trainer specialty excludes Dance	1
		Memos	Document creation and evidence of mergefields (A report or screenshot is not acceptable for this mark)	The document has a title of Memo	1
				The given text is is 100% accurate and is below the title	1
				The required mergefields are in header (trainer_forename, trainer_surname)	1
			Printed memos	The BMI data is exported to a document as a table	1
				... the required fields are present - Only (mem.num, forename,surname, fit.prog, BMI)	1
				The Memos are printed for the correct 5 trainers Pasan Khan, Mena Singh, Pierre Roux, Lucy Evans and Hans Duerr ONLY the contents and layout are fit for purpose	1
					14

2a	Use of the database to calculate the income for each class	Income per class queries (Import of calculations carried out in a spreadsheet is not acceptable for the method marks)	Database query (use of Count, Crosstab, Duplicates etc.). Can be marked from evidence provided in the design view of a report	Evidence of a method using the database	1
				Evidence of method to count records is provided	1
				Evidence of method to count correct field (Member_number)	1
				Evidence of method to calculate class income	1
				...based on the count method used previously	1
				An Income per class field added	1
				...the field is shown as a calculation	1
				The correct calculation is shown – (Class_Cost * Count of ...)	1
		Income Report	Formatted database report	The required fields are present class_name, Income only - the layout is fit for purpose	1
				Candidate details are inserted at the top of the report	1
				Correct data is shown	1
				The report is printed, with all currency in € The ToneIT logo is in the correct place and is the correct size	1

2b	Use of the database to print a report of the profit or loss for classes of a trainer	Selection of trainer	Database parameter query to select trainer	Selection of trainer. Evidence that the Trainers table is used	1	
				The Trainer name fields are used	1	
				The Trainer name fields are concatenated. Full name field created	1	
				A parameter criterion is created on forename	Both marks can be awarded if a full name field is used	1
				A parameter criterion is created on surname		1
				Suitably specific prompt text is inserted for the parameter criterion	1	
		Profit/Loss calculation (Import of calculations carried out in a spreadsheet is not acceptable for the method marks)	Can be marked from evidence provided in the design view of a report	Evidence of Profit/Loss method	1	
				The Income per class data/method is used	1	
				A field is added to calculate profit/loss (with appropriate label)	1	
				Profit/loss is calculated. The correct formula is used – Income-25	1	
		Profit /loss report	Formatted database report	A report is created with the correct fields displayed class_name, Profit/Loss only	1	
				The count matches the number of classes shown as field	1	
				The count is correct and shown in the correct position	1	
				The report is printed and grouped for Gurdeep Singh only	1	
				The correct four class_names are present displayed once	1	
				The Profit/loss values are correct for each class	1	
				The report shows the correct 2 fields only. The layout is fit for purpose – all currency is in €	1	
				The report fits on single page	1	
The logo is in the correct position and is the correct size	1					

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		Profit /loss Chart	Bar Chart created using the database	A bar chart is created to display the profit/loss for each class	1
				The chart is included in the report	1
				The correct values are shown in the chart. Can follow through for incorrect data shown in report	1
				The chart has a suitable title	1
				The X axis has a suitable title	1
				The Y axis has a suitable title	1
				The Y axis is set to currency € and 2 dp	1
				(All) chart titles and labels are shown. The report layout is fit for purpose	1
					27

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3	Use the database as a source for printing letters to members aged 35 or over	Mail merge selection	<p>Calculation of age of members and selection of members aged 35 and over.</p> <p>(Import of calculations carried out in a spreadsheet is not acceptable for method marks)</p>	Evidence of Query/selection method	1
				Evidence that the Member table is used	1
				All & Only the required fields are used Forename, Surname, DOB, Fit.-Prog and Mailing_list	1
				A field is added to calculate the member age	1
				A valid method for the calculation is shown	1
				Evidence of a correct expression is provided e.g. Year(Now())-Year([date_of_birth]) DateDiff("yyyy",[Members]![date_of_birth],Now())	1
				The correct criterion on Member age is set 35 years and over	1
				The correct criterion on Mailing_list is set True/yes - SkipIf or filter is acceptable	1
				Evidence that Steffi Beckenbaur is excluded manual deselection is acceptable	1
		Merge document	<p>Evidence of mergefields inserted as specified</p> <p>(Screenshots of the document and the dialog box for the conditional field are acceptable for these marks)</p>	The Date is displayed as a field	1
				The Forename mergefield is inserted	1
				The Surname mergefield is inserted	1
				The Fitness program mergefield is inserted	1
				The Logic and syntax is correct for the conditional mergefield Fitness_programme is used as the criterion	1
				The correct conditional text for "10% discount" letter is added	1
				The correct conditional text for "special offers" letter is added. Both must be present for this mark	1
		Mail merge letters	Merged letters "proofed" and printed	The correct 3 letters are present – Only	1
				Correct letter to Maria Valesquez shows "General Fitness programme" and "10% discount" text	1
				Correct letters to Malcom Jones and Diego Garcia show "Toning programme" and "special offers" text	1
				All letters include the conditional text and are proofed for errors	1

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				The logo is inserted in the correct place and is the correct size	1
				All candidate details are shown at the bottom of all letters	1
					22
				Total marks	90