



Pearson

Mark Scheme (Results)

Summer 2017

Pearson Edexcel GCE Applied in
Information and Communication
Technology (6957) Paper 01

Unit 7: Using Database Software

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Summer 2017

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General Marking Guidance

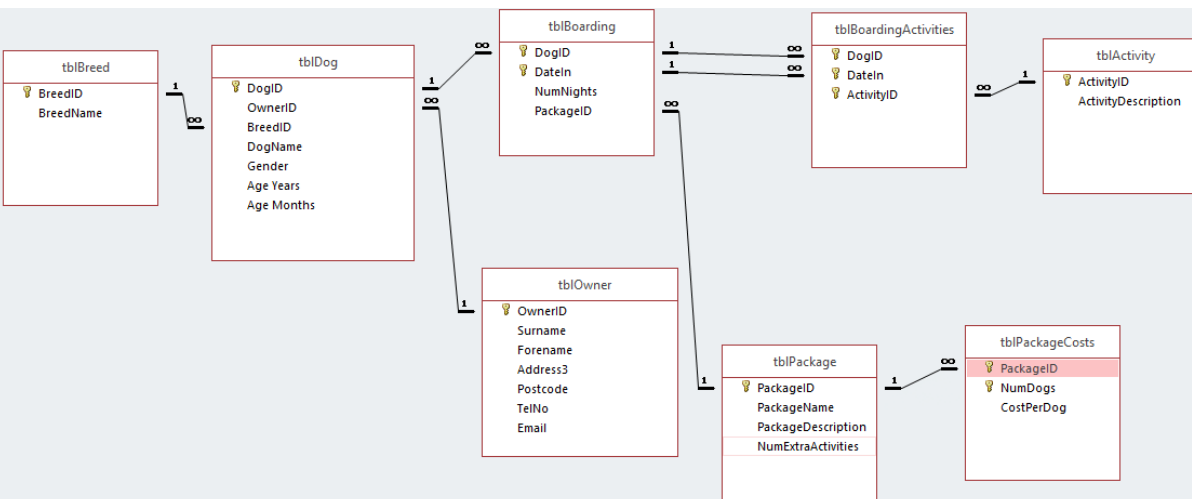
- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Applied GCE Unit 7 – Mark Scheme - June 2017

		ANSWER				POSS. MARK	MAX
Activity 1		Understanding the problem					
a)	1	Step	Input	Generated Value	Output		
		Select supplier	<input type="checkbox"/>				
		Add order	<input type="checkbox"/>				
		Calculate order date*		<input type="checkbox"/>			
		Select product	<input type="checkbox"/>				
		Add quantity	<input type="checkbox"/>				
		Calculate product cost		<input type="checkbox"/>			
		Calculate total cost		<input type="checkbox"/>			
		Display completed purchase			<input type="checkbox"/>		
		<p>1 mark per correct row *award only 1 mark if both 'Add order date' and 'calculate order date' given. Any sensible</p>					
		Total for Activity 1					5

Activity 2

Structure



BoardingActivities

DogID	DateIn	ActivityID
1	17/06/2015	3
2	22/03/2015	2
3	08/03/2015	2
3	08/03/2015	3
4	01/01/2015	1
4	01/07/2015	2
4	01/07/2015	3
5	04/02/2015	2
5	04/02/2015	3

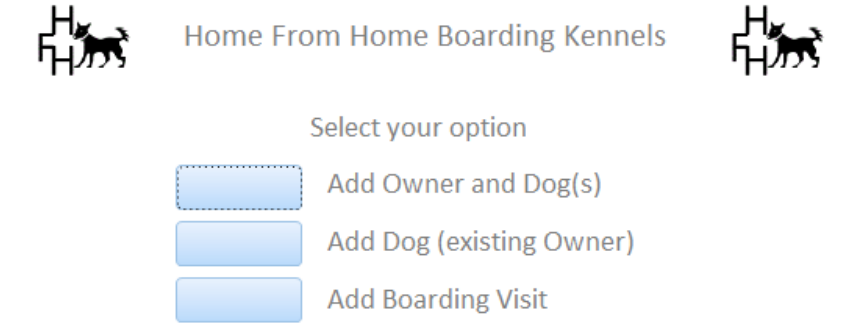
PackageCosts

PackageID	NumDogs	NumExtraActivities	CostPerDog
1	1	1	£25.00
1	2	1	£19.00
1	3	1	£15.00
2	1	2	£27.00
2	2	2	£21.00
2	3	2	£17.00
3	1	3	£32.00
3	2	3	£26.00
3	3	3	£20.00

a)	A1	Package (T1) and Activities (T5)	1
	A2	Owner (T6) and Dog (T8)	1
	A3	Boarding Activities / Booking Activities(T4)	1
	A4	Boarding Visit / Booking Visit (T3)	1
	A5	Breed (T7)	1
	A6	Package Costs (T2)	1
	A7	1:M Package – Package Costs (T1-T2)	1
	A8	1:M Package – Boarding Visit (T1-T3)	1
	A9	Boarding – Boarding Activities relationship Does not need to be enforced (T3-T4)	1
	A10	1:M Dog – Boarding (T8-T3)	1
	A11	1:M Activities – Boarding Activities (T5-T4)	1
	A12	1:M Breed – Dog (T7-T8)	1
	A13	1:M Owner – Dog (T6-T8)	1
			(13)

b)		Data Types		
	B1	Evidence of correct primary keys Any 3 of: Activity - ActivityID Breed - BreedID Owner - OwnerID Dog - DogID Package - PackageID	1	
	B2	Any 1 of: Table Boarding Visit - DogID, DateIn as composite key (T3/A4) Table Package Costs - PackageID, NumDogs as composite key (T2/A6)	1	
	B3	Table BoardingActivities - DogID, DateIn, ActivityID present. Does not need to be composite key (T4/A3)	1	
	B4	Evidence of correct data types NumNights - Number AgeYears - Number AgeMonths - Number DateIn - Date/Time, PackageDescription LongText/Memo CostPerDogPerNigh - Currency At least 1 of each type	1	
				(4)
c)i	C1	Any suitable presence check from Any foreign key Anything sensible Not primary keys	1	
c)ii	C2	Foreign key (can be part of the composite key). MUST have: limit to list yes One of: Package Costs table - PackageID Dog table - OwnerID Boarding Visit / Booking table - PackageID or DogID Boarding Activities / Booking Activities table - ActivityID or DogID or DateIn Dog table - BreedID or OwnerID	1	
				(2)

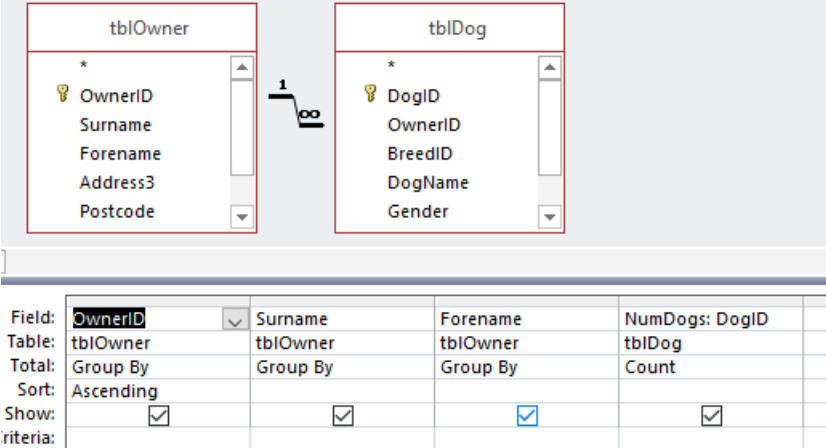
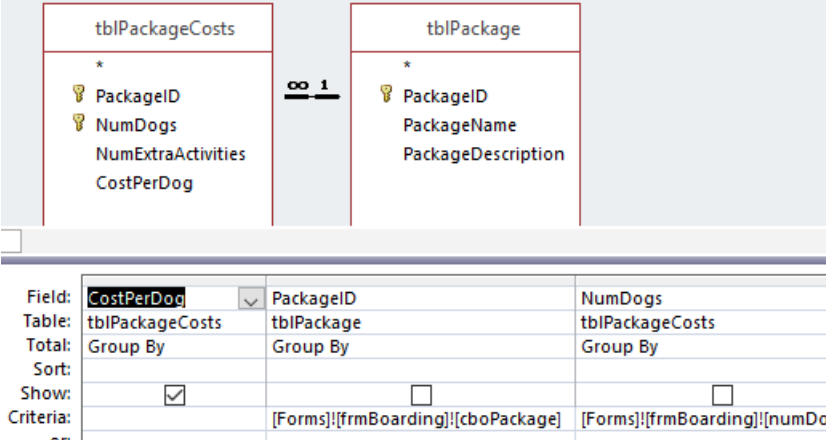
d)	D1	All four for 1 mark Dog – 58 Package - 3 Owner – 50 Activities - 3	1	
	D2	Breed - 51	1	
	D3	Package Costs – 9	1	
	D4	Boarding Visit / Booking – 76	1	
	D5	Boarding Activities / Booking Activities – 130 or 164	1	
				(5)
		Total marks for Activity 2		24

Activity 3			
a)	<p>Menu</p> <hr/>  <p>The screenshot shows a menu for 'Home From Home Boarding Kennels'. It features two logos on either side of the title. Below the title, it says 'Select your option' and lists three buttons: 'Add Owner and Dog(s)', 'Add Dog (existing Owner)', and 'Add Boarding Visit'.</p>		
	A1 Logo included in correct positions	1	
	A2 Buttons have correct labels	1	
			(2)
b)	Owner and Dog Registration Form		
(i)	<p>B1 Form includes:</p> <ul style="list-style-type: none"> • Surname • Forename • Address • Postcode • TelNo • Email 	1	
	<p>B2 Must be subform Subform includes:</p> <ul style="list-style-type: none"> • BreedID / BreedName • DogName • Gender • AgeYears • AgeMonths 	1	
			(2)
(ii)	<p>B3 Macro attached to button 'On Click' event on Menu AND Form would open at new record for data entry e.g. DoCmd.GoToRecord,,acNewRe</p>	1	
			(1)

(iii)	B4	OwnerID generated correctly e.g. Max([OwnerID])+1 DMax("OwnerID","OwnerTable")+1 Forms!frmOwner!OwnerID=DMax("OwnerID","OwnerTable")+1 If autonumber used in activity 2 screen print must be included here.	1	
				(1)
(iv)	B5	DogID generated correctly e.g. Max([DogID])+1 DMax("DogID","DogTable")+1 Forms!frmOwner!sfrmDog.Form.DogID=DMax("DogID", "DogTable")+1 If autonumber used in activity 2 screen print must be included here	1	
				(1)
(v)	Customisation (any view)			
	B6	Any 1 from: <ul style="list-style-type: none"> • Asterisks where data has to be entered • Field widths suitable for expected data • Suitable labels • Combo box for Breed • Combo box for Gender • Combo box for AgeMonths 	1	
				(1)
(c)	Saving owner's details			
	C1	Check to ensure at least two from: <ul style="list-style-type: none"> • Surname • Forename • Address • Postcode • TelNo • Email Are present	1	
	C2	Owner's record would save All fields must be shown in Query in full and Query used in Macro or equivalent method that works.	1	
				(2)

(d)		Saving dog's details		
	D1	<p>Check to ensure at least two from:</p> <ul style="list-style-type: none"> • Breed • DogName • Gender <p>Are present</p> <p>Or</p> <p>Check to ensure either AgeInYears or AgeInMonths (but not both is present)</p>	1	
	D2	<p>Dog record would save</p> <p>All fields must be shown in Query in full and Query used in Macro or equivalent method that works.</p>	1	
				(2)
(e)		Menu and Add dog (existing owner) form		
	E1	<p>Form would open from menu at first record e.g. DoCmd.OpenForm "frmOwner" Not add mode</p>	1	
				(1)
(f)		Menu and Search Facility on Add dog (existing owner) form		
(i)	F1	<p>Combo box alongside OwnerID Need to be sure two separate objects</p>	1	
				(1)
(ii)	F2	<p>For example</p> <ul style="list-style-type: none"> • Screenprint showing row source containing at least OwnerID • Screenprint of query and row source uses query 	1	
				(1)
(iii)	F3	<p>Any 1 from:</p> <ul style="list-style-type: none"> • Screenprint showing visible property set to false when 'Add new owner and dog(s)' button clicked • Screenprint showing visible property set to true when 'Add dog (existing owner)' button clicked 	1	
				(1)

g)		Boarding form		
(i)	G1	Form is as given. <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">Boarding</p> <p>Select Owner <input type="text" value=""/> ▼ *</p> <p>Date Of Arrival <input type="text" value=""/> *</p> <p>Number Of Nights <input type="text" value=""/> *</p> <p>Select Package <input type="text" value=""/> ▼ *</p> <p>Cost Per Dog Per Night <input type="text" value=""/></p> <p>Number Of Dogs <input type="text" value=""/></p> <p>Total Cost <input type="text" value=""/></p> <p style="text-align: center;">Chosen Activities</p> <p>Activity 1 <input type="text" value=""/> ▼ *</p> <p>Activity 2 <input type="text" value=""/> ▼ *</p> <p>Activity 3 <input type="text" value=""/> ▼ *</p> <p style="text-align: center;"><input type="button" value="Save"/></p> </div>	1	
				(1)
(ii)	G2	Screenprint of row source for owner combo box that would show details of owners	1	
				(1)
(iii)	G3	If (DateOfArrival < Date()+7) then error message displayed	1	
				(1)
(iv)	G4	If (NumberOfNights<2) then error message displayed	1	
				(1)
(v)	G5	Screenprint of row source for package combo box that would show details of packages	1	
				(1)
(vi)	G6	Screenprint of at least 1 activity combo box that would show details of activities	1	
				(1)

(vii)	G7	 <p>Field: <u>OwnerID</u> Surname Forename NumDogs: DogID Table: tblOwner tblOwner tblOwner tblDog Total: Group By Group By Group By Count Sort: Ascending Show: <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Criteria: or:</p> <p>Number Of Dogs method correct must see any queries used if calculation refers to these</p>	1	
				(1)
(viii)	G8	 <p>Field: <u>CostPerDog</u> PackageID NumDogs Table: tblPackageCosts tblPackage tblPackageCosts Total: Group By Group By Group By Sort: Show: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Criteria: [Forms]![frmBoarding]![cboPackage] [Forms]![frmBoarding]![numDogs] or:</p> <p>Cost Per Dog Per Night method correct must see any queries used if calculation refers to these</p>	1	
	G9	<p>Combo box update taken from (vii) or (viii)</p> <p>Number Of Dogs would be re-queried every time an owner is selected OR Cost Per Dog Per Night would be re-queried every time a package is selected</p>	1	
				(2)
(ix)	G10	<p>Correct number of activity text boxes for the package calculated PackageID 1 1 activity PackageID 2 2 activities PackageID 3 3 activities</p>	1	
	G11	<p>Number of activity text boxes visible correct for package selected</p>	1	
				(2)
(x)	G12	<p>'Total Cost' method correct</p>	1	
				(1)
		Total for Activity 3		(28)

Activity 4		Testing																														
a)		Add owner and dog(s) button and form																														
(i)	A1	Screen print of blank form OwnerID at least 51 DogID at least 59	1																													
(ii)	A2	Details correct <table border="1"> <tr><td>Surname</td><td>Meek</td></tr> <tr><td>Forename</td><td>Gillian</td></tr> <tr><td>Address</td><td>12 The Grove</td></tr> <tr><td>Postcode</td><td>BB3 7SX</td></tr> <tr><td>Tel No</td><td>(5121) 4450000</td></tr> <tr><td>Email</td><td>Gillian.Meek@Lineline.org</td></tr> </table> <table border="1"> <tr><td>BreedID</td><td>16</td></tr> <tr><td>Dog name</td><td>Sammy</td></tr> <tr><td>Gender</td><td>Dog</td></tr> <tr><td>Age in years</td><td>5</td></tr> </table> <table border="1"> <tr><td>BreedID</td><td>32</td></tr> <tr><td>DogName</td><td>Saul</td></tr> <tr><td>Gender</td><td>Dog</td></tr> <tr><td>Age in years</td><td>7</td></tr> </table> And fields shown above correctly stored in owner and dog tables	Surname	Meek	Forename	Gillian	Address	12 The Grove	Postcode	BB3 7SX	Tel No	(5121) 4450000	Email	Gillian.Meek@Lineline.org	BreedID	16	Dog name	Sammy	Gender	Dog	Age in years	5	BreedID	32	DogName	Saul	Gender	Dog	Age in years	7	1	
Surname	Meek																															
Forename	Gillian																															
Address	12 The Grove																															
Postcode	BB3 7SX																															
Tel No	(5121) 4450000																															
Email	Gillian.Meek@Lineline.org																															
BreedID	16																															
Dog name	Sammy																															
Gender	Dog																															
Age in years	5																															
BreedID	32																															
DogName	Saul																															
Gender	Dog																															
Age in years	7																															
				(2)																												
b)		Details Missing																														
	B1	Suitable error message shown indicating postcode is null. Must be able to see the postcode field is empty	1																													
				(1)																												
(c)		Age Error																														
	C1	Suitable error message shown indicating cannot enter both age in years and age in months. Must be able to see data in the age in years and age in months fields.	1																													
				(1)																												
(d)		Add dog (existing owner) button and form																														
(i)	D1	Correct owner details appear in the form OwnerID: 10 Surname: James Forename: Leonila Address: 93 South Saratoga Oval Postcode: BB3 2NT Tel No: (5121) 4636088 Email: Leonila.James@Jtonlab.co.uk	1																													

	D2	Correct dog details appear in subform DogID: 49 BreedID: 147 DogName: Toby Gender: Dog Age in Years: 1			1
					(2)
(ii)	D3	Correct details entered for new dog: BreedID: 35 Dog name: Chang Gender: Bitch Age in years: 3 AND Screen print of relevant table showing new record Must see: DogID: Minimum of 61 Other details match form input			1
					(1)
(e)		Boarding Visit			
	E1	Correct details entered and only 2 Activity combo boxes shown OwnerID: 45 Date Of Arrival: 01/07/2017 Number Of Nights: 7 PackageID: 2 ActivityID for activity 1: 1 ActivityID for activity 2: 3			1
	E2	Number of Dogs: 2			1
	E3	Cost Per Dog Per Night: £21.00			1
	E4	Total Cost: £294.00 FT if different total cost shown – so long as correct total for Number of Nights * Cost Per Night Per Dog * Num Dogs			1
					(4)
		Total for Activity 4			11

Activity 5		Owner Query		
a)	A1	Query linked to owner selected on form e.g. Forms!frmOwner!cboOwner	1	
	A2	Query includes these fields: Surname Forename Address Postcode TelNum Email BreedName DogName Gender AgeMonths AgeYears	1	
		Report in Design view		(2)
		B2 to B4: evidence in design view though if cannot see field names in full check with report view		
b)(i)	B1	Grouped by OwnerID	1	
(ii)	B2	Group header shows these fields: Surname Forename Address Postcode TelNo Email And these labels: Breed name Dog name Gender Age in months Age in years	1	
(iii)	B3	Detail section shows these fields: BreedName DogName Gender AgeMonths AgeYears	1	
(iv)	B4	Total dogs in group footer e.g. =Count(BreedName) Must be a calculation	1	
				(4)

(c)		Printed report																						
	C1	Suitable layout, not just default layout	1																					
				(1)																				
(d)	D1	Report is for correct owner: <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;">Delila Hurley 28 West Skipworth Heights BB3 6QP Phone Number (5121) 4257900 Address Delila.Hurley@Doubletone.com</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Breed Name</th> <th style="text-align: left;">Dog Name</th> <th style="text-align: left;">Gender</th> <th style="text-align: left;">Age Years</th> <th style="text-align: left;">Age Months</th> </tr> </thead> <tbody> <tr> <td>Hovawart</td> <td>Luna</td> <td>Bitch</td> <td>8</td> <td></td> </tr> <tr> <td>Greyhound</td> <td>Minnie</td> <td>Bitch</td> <td>11</td> <td></td> </tr> <tr> <td colspan="5" style="text-align: right;">Total Dogs 2</td> </tr> </tbody> </table> </div>	Breed Name	Dog Name	Gender	Age Years	Age Months	Hovawart	Luna	Bitch	8		Greyhound	Minnie	Bitch	11		Total Dogs 2						
Breed Name	Dog Name	Gender	Age Years	Age Months																				
Hovawart	Luna	Bitch	8																					
Greyhound	Minnie	Bitch	11																					
Total Dogs 2																								
			1																					
				(1)																				
		Total marks for Activity 5		8																				

Activity 6**Evaluation**

Note: Place student in correct mark band based on content.

QWC adjustment can only reduce mark within band. This must be based on the expectation within the mark band. Marks cannot be added and the adjustment cannot put the mark in a different mark band.

Indicative content**Adding owners and their dog(s) and adding dogs for existing owners**

How useful it was to use one form to carry out both tasks.

- Did not need to spend time building and customising a form from scratch.
- Validation for data entry only needed to be specified once
- More efficient to use code to create a different view of the form depending on the task
- Keeps the size of the database to a minimum

How the process could be improved

- All owner fields could be disabled when opening to add new dog to prevent accidental changes to data
- Edit button could be provided to edit owner details which would then enable the fields
- If the breed is not in the list could ask if they would like to add new breed and store the input in the breed table
- Date of birth could be stored as opposed to age in months or age in years as this is static so will become outdated unless the information is gathered with every boarding
- Help facility/button or improved/more error messages for incorrect data eg gender restricted to dog nor bitch
- Improved validation on telephone number as the code has brackets.
- Improved validation on the postcode as all follow same format
- Title of form could be changed depending on what it is being used for

Adding boarding visits

How the design provided in Activity 3 helped you, as the database programmer, to create the form.

- Showed what controls to use
- Showed exact placements of controls
- Showed disabled fields
- Showed where automatic content would need to be
- Did not need to think of how to approach task. Layout indicates what needs to be done and makes it more clear to see how to do it with the instructions given in the task

Additional functionality you would recommend for the final system.

- Boarding form - Boarding visit information should be saved in the boarding and boarding activity tables
- Boarding form - Owner details could be displayed when OwnerID selected
- Boarding form - Dog details could be shown when OwnerID selected
- Add/Edit/Delete Supplier
- Add purchase orders

- Print purchase orders
- Add comments about dogs eg health, special requirements
- Delete dogs
- Delete owners
- Archive boarding visits
- Add/Edit/Delete Staff
- Produce and print invoices for boarding visits
- Reports on bookings

Level	Mark	Descriptor
0	0	No rewardable material.
Level 1	1-4	Description of what candidate did during tasks (possibly using screenshots) Description of what candidate did not manage to complete or what does not work. Evaluative comments limited. The candidate uses everyday language and the response lacks clarity and organisation. Spelling, punctuation and the rules of grammar are used with limited accuracy.
Level 2	5-8	Candidate may address some points Will be descriptive in places but mostly evaluative. May give evaluative points from a user rather than a programmer point of view. The candidate uses some terms and shows some focus and organisation. Spelling, punctuation and the rules of grammar are used with some accuracy.
Level 3	9-12	Will be evaluative throughout. Will be from a programmer's point of view. The candidate uses a range of appropriate terms and shows good focus and organisation. Spelling, punctuation and the rules of grammar used with considerable accuracy.

SWW1		Administration details on each page	1	
SWW2		Required printouts only assembled correctly	1	
		Total Marks for Standard ways of working		2
		Total marks for Paper		90

