



Mark Scheme (Provisional)

Summer 2021

Pearson Edexcel International Advanced Subsidiary
In Information Technology (WIT14)
Unit 4

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Summer 2021

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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.

Note to examiners:

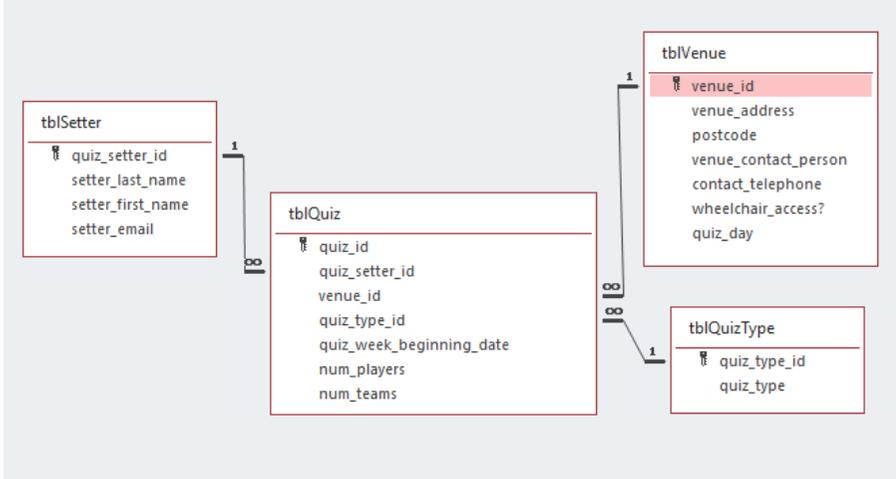
Where example screenshots are included, these are indicative content only and not a definitive answer. Students should receive credit based on the marking instructions in the answer column.

Question number	Answer	Additional Guidance	Mark	
1(a)(i)	Presence check and format check for contact_telephone			
	A1	Presence check on contact_telephone field Required set to yes OR validation rule of 'Is Not Null'	Does not need validation text as no mark for given that	1
	A2	Input mask or suitable validation rule on contact_telephone field Input mask 000000000000 Input mask 000000000000;;_	Accept alternatives e.g. suitable validation rule	1
	Total			2
1(a)(ii)	List check for quiz_day			
	A3	List box or combo box added to quiz_day field	Must see field it is applied to. Should be design view but can accept datasheet view.	1
	A4	Correct values Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday	Accept datasheet view so long as can see all the values. Accept any order of days. Accept spelling errors	1
	A5	Limit to list set to Yes		1
Total			3	
1(a)(iii)	Data type for wheelchair access			
	A6	Yes/No		1
Total			1	

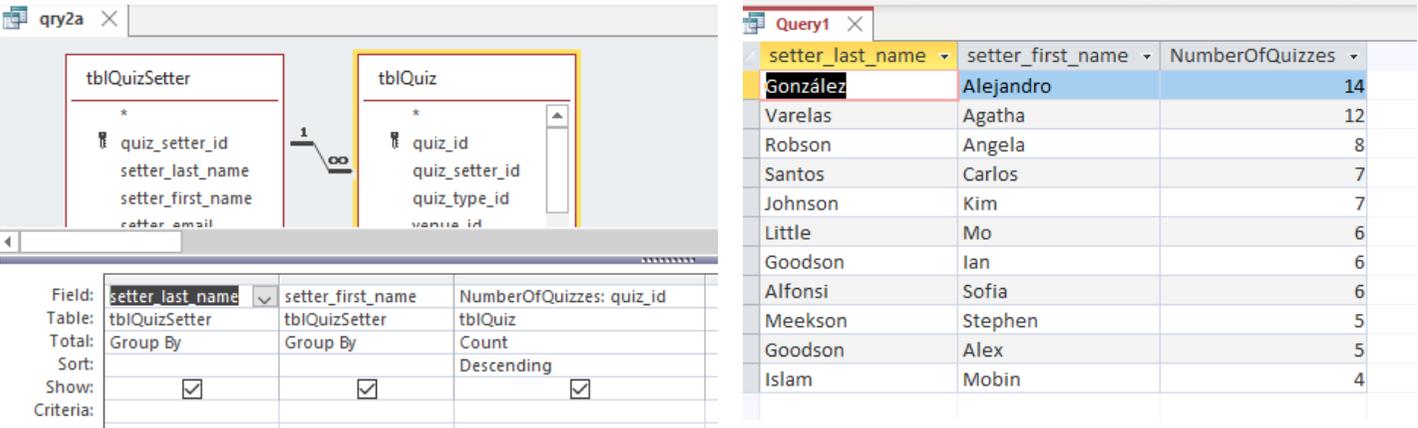
Question number	Answer	Additional Guidance	Mark	
1(b)	Edit venue form			
	B1	Form includes all of the fields from the venue table	1	
	B2	venue_id is disabled	1	
	B3	Combo/List box has been added to select a venue address	Do not need to see any values for the combo box	1
	B4	One from: <ul style="list-style-type: none"> • Form labels are appropriate (not database field names) • Form has meaningful title • Entry boxes on form are resized appropriately to reflect the data they will be used to enter • Instructions on how to use • Asterisk on any field except venue_id 		1
	B5	Form would update to show the venue details for the venue selected in the combo box		1
	B6	Button present and suitably labelled e.g. Close		1
	B7	Suitable message would display if the data has been changed e.g. the data has changed and has not been saved yet / the save prompt used		1
	B8	No more than one suitable message would appear if changes have been made.		1
Total			8	

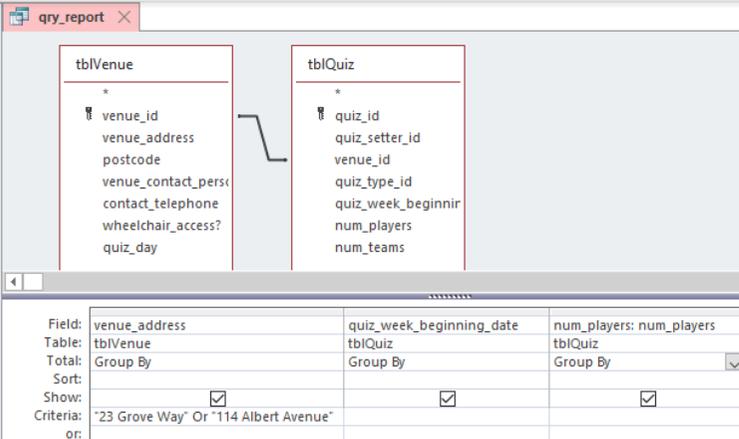
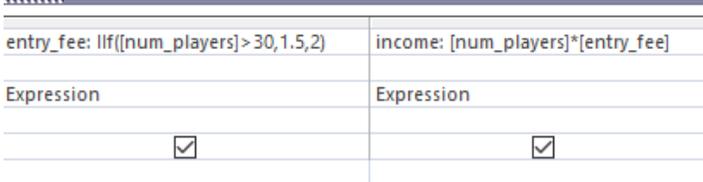
Question number	Answer	Additional Guidance	Mark
1(c)	<p>Indicative content</p> <p><i>Analysis</i></p> <ul style="list-style-type: none"> • Field called quiz_day in the table. • It is atomic as it only has one day of the week in it. • It has a list check on it that means the user can only select 1 day of the week as the value for it. • Primary key of venue_id cannot be repeated in the table so cannot add another row for a venue that needs quizzes on more than one day. • If the primary key was removed and further rows added for each venue that has quizzes on more than one day there would be redundant data. <p><i>Recommendations</i></p> <ul style="list-style-type: none"> • Create a new table called quiz days. • Remove the quiz_day field from the venue table • Have a composite primary key of venue_id and quiz_day so that the venue_id could be repeated as many times as needed so long as the day of the week was different • Could keep the list check on the quiz_day field 		9

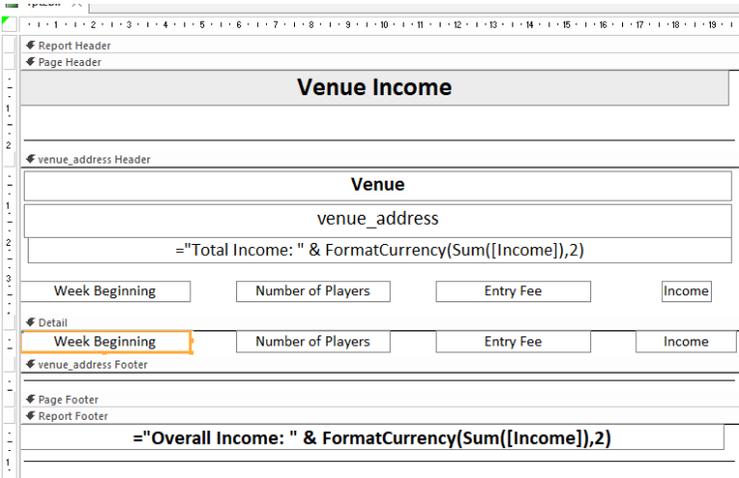
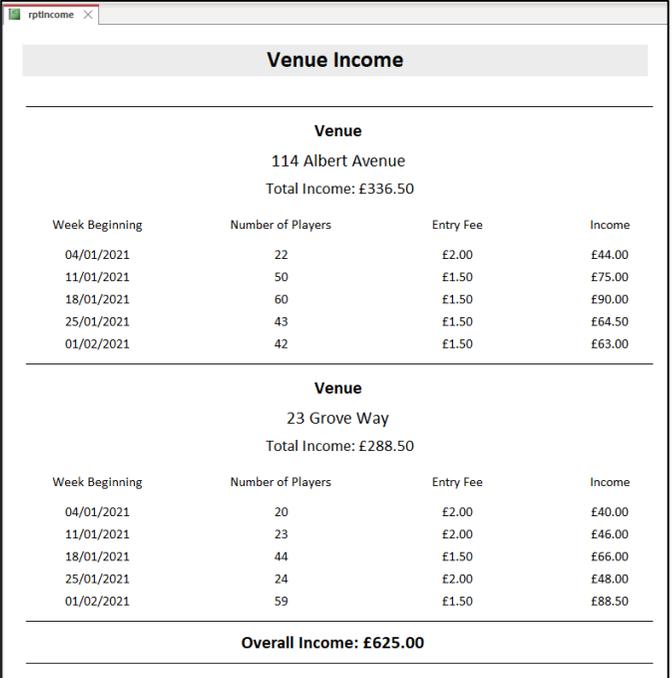
Level	Mark	Descriptor
	0	No Awardable content
Level 1	1-3	<ul style="list-style-type: none"> • Analysis is flawed or superficial, containing simple statements that show limited understanding of the subject matter. • Solution may contain some aspects that are appropriate, but is generally ineffective.
Level 2	4-6	<ul style="list-style-type: none"> • Analysis is sound, containing minor inaccuracies or omissions, showing some understanding of the given issue. • Solution is workable but may have minor issues.
Level 3	7-9	<ul style="list-style-type: none"> • Analysis is sound and developed, containing ideas that are linked together in a fluent and logical way, showing a thorough understanding of the given issue. • Solution is appropriate and workable.
Total for question		9

Question number	Answer	Additional Guidance	Mark
1(d)	<p>Table Structure</p> 		
D1	Use of appropriate table and field names and naming conventions		1
D2	Quiz table is present with suitable fields		1
D3	Setter type table is present with suitable fields		1
D4	Quiz type table is present with suitable fields		1
D5	1:M relationship between Setter and Quiz		1
D6	1:M relationship between Quiz type and Quiz		1
D7	1:M relationship between Venue and Quiz		1
D8	Appropriate primary key used for Quiz type table		1
D9	Appropriate primary key used for Setter table		1
D10	Appropriate primary key used for Quiz table		1
D11	Date/Time is used for quiz_week_beginning_date And At least one suitable number field is present		1
	Total		11

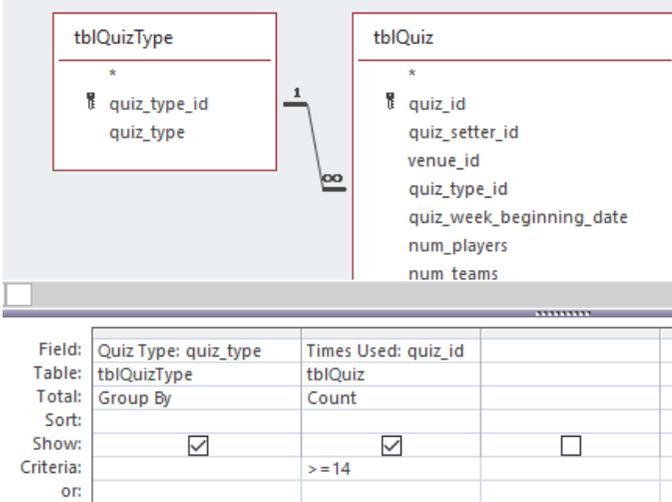
Question number	Answer	Additional Guidance	Mark	
1(e)	Import			
	E1	Quiz table – 80 records		1
	E2	Quiz type table – 6 records		1
	E3	Setter table – 11 records		1
			Total	3
			Total for question 1	37

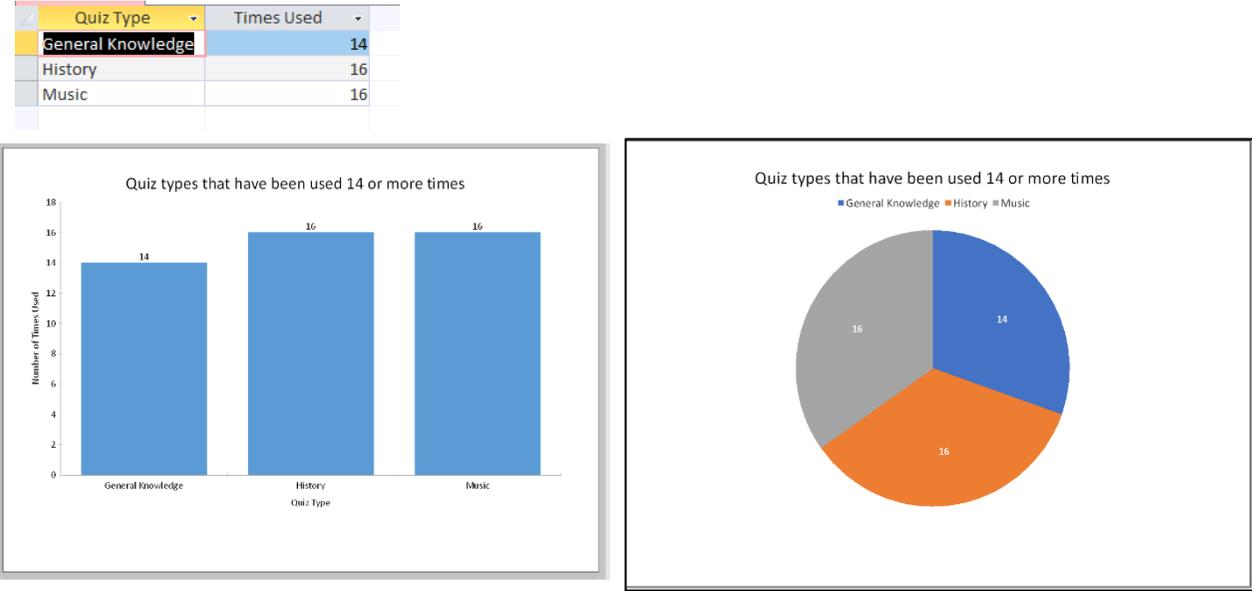
Question number	Answer	Additional Guidance	Mark																																																												
2(a)	<p>Quiz setter and quizzes set query</p>  <p>The screenshot shows two parts of an Access database. On the left, the 'qry2a' query design view shows a relationship between 'tblQuizSetter' and 'tblQuiz'. 'tblQuizSetter' has fields: quiz_setter_id (primary key), setter_last_name, setter_first_name, and setter_email. 'tblQuiz' has fields: quiz_id (primary key), quiz_setter_id (foreign key), quiz_type_id, and venue_id. The relationship is one-to-many. Below the design view is the 'Field List' table:</p> <table border="1" data-bbox="472 603 1160 751"> <thead> <tr> <th>Field:</th> <th>setter_last_name</th> <th>setter_first_name</th> <th>NumberOfQuizzes: quiz_id</th> </tr> </thead> <tbody> <tr> <td>Table:</td> <td>tblQuizSetter</td> <td>tblQuizSetter</td> <td>tblQuiz</td> </tr> <tr> <td>Total:</td> <td>Group By</td> <td>Group By</td> <td>Count</td> </tr> <tr> <td>Sort:</td> <td></td> <td></td> <td>Descending</td> </tr> <tr> <td>Show:</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Criteria:</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>On the right, the 'Query1' datasheet view shows the following results:</p> <table border="1" data-bbox="1182 323 1861 738"> <thead> <tr> <th>setter_last_name</th> <th>setter_first_name</th> <th>NumberOfQuizzes</th> </tr> </thead> <tbody> <tr><td>González</td><td>Alejandro</td><td>14</td></tr> <tr><td>Varelas</td><td>Agatha</td><td>12</td></tr> <tr><td>Robson</td><td>Angela</td><td>8</td></tr> <tr><td>Santos</td><td>Carlos</td><td>7</td></tr> <tr><td>Johnson</td><td>Kim</td><td>7</td></tr> <tr><td>Little</td><td>Mo</td><td>6</td></tr> <tr><td>Goodson</td><td>Ian</td><td>6</td></tr> <tr><td>Alfonsi</td><td>Sofia</td><td>6</td></tr> <tr><td>Meekson</td><td>Stephen</td><td>5</td></tr> <tr><td>Goodson</td><td>Alex</td><td>5</td></tr> <tr><td>Islam</td><td>Mobin</td><td>4</td></tr> </tbody> </table>			Field:	setter_last_name	setter_first_name	NumberOfQuizzes: quiz_id	Table:	tblQuizSetter	tblQuizSetter	tblQuiz	Total:	Group By	Group By	Count	Sort:			Descending	Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Criteria:				setter_last_name	setter_first_name	NumberOfQuizzes	González	Alejandro	14	Varelas	Agatha	12	Robson	Angela	8	Santos	Carlos	7	Johnson	Kim	7	Little	Mo	6	Goodson	Ian	6	Alfonsi	Sofia	6	Meekson	Stephen	5	Goodson	Alex	5	Islam	Mobin	4
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Goodson	Alex	5																																																													
Islam	Mobin	4																																																													
A1	Only these fields included in query setter_last_name setter_first_name any field from quiz table to be used as generated field		1																																																												
A2	Number of quizzes per quiz setter generated		1																																																												
A3	Generated field has suitable field name		1																																																												
A4	Number of quizzes sorted into descending order		1																																																												
A5	Columns not truncated	Datasheet view	1																																																												
A6	Correct results shown	Datasheet view	1																																																												
Total			6																																																												

Question number	Answer	Additional Guidance	Mark
2(b)(i)	<p>Venue income query</p> 		
B1	Correct related tables added (venue, quiz)		1
B2	Criteria correct for venue_address or venue_id <ul style="list-style-type: none"> • "23 Grove Way" or "114 Albert Avenue" • 1 or 6 		1
Calculation for entry fee			
B3	Partially correct <ul style="list-style-type: none"> • 1.5 if the number of players is > 30 OR • 2 if the number of players <=30 		1
B4	Fully correct <ul style="list-style-type: none"> • 1.5 if the number of players is > 30 AND • 2 if the number of players <=30 		1
B5	Calculation correct for income: <ul style="list-style-type: none"> • num_players*entry fee 	Follow through on any errors in entry fee	1
Total			5

Question number	Answer	Additional Guidance	Mark																																																
2(b)(ii)	<p>Venue income report</p>  <p>The screenshot shows a report design view for 'Venue Income'. It includes a report header with the title 'Venue Income', a page header, and a venue address header. The main body is grouped by venue, with a sub-header 'Venue' and a field for 'venue_address'. A detail section contains a table with columns: 'Week Beginning', 'Number of Players', 'Entry Fee', and 'Income'. A formula bar shows the formula: <code>= "Total Income: " & FormatCurrency(Sum([Income]),2)</code>. The report footer includes a page footer and a report footer with the formula: <code>= "Overall Income: " & FormatCurrency(Sum([Income]),2)</code>.</p>	 <p>The screenshot shows a report print view for 'Venue Income'. It displays two venue sections. The first section is for '114 Albert Avenue' with a total income of £336.50. The second section is for '23 Grove Way' with a total income of £288.50. Each section contains a table with columns: 'Week Beginning', 'Number of Players', 'Entry Fee', and 'Income'. The overall total income for both venues is £625.00.</p> <table border="1" data-bbox="1400 534 2027 694"> <thead> <tr> <th>Week Beginning</th> <th>Number of Players</th> <th>Entry Fee</th> <th>Income</th> </tr> </thead> <tbody> <tr> <td>04/01/2021</td> <td>22</td> <td>£2.00</td> <td>£44.00</td> </tr> <tr> <td>11/01/2021</td> <td>50</td> <td>£1.50</td> <td>£75.00</td> </tr> <tr> <td>18/01/2021</td> <td>60</td> <td>£1.50</td> <td>£90.00</td> </tr> <tr> <td>25/01/2021</td> <td>43</td> <td>£1.50</td> <td>£64.50</td> </tr> <tr> <td>01/02/2021</td> <td>42</td> <td>£1.50</td> <td>£63.00</td> </tr> </tbody> </table> <table border="1" data-bbox="1400 798 2027 949"> <thead> <tr> <th>Week Beginning</th> <th>Number of Players</th> <th>Entry Fee</th> <th>Income</th> </tr> </thead> <tbody> <tr> <td>04/01/2021</td> <td>20</td> <td>£2.00</td> <td>£40.00</td> </tr> <tr> <td>11/01/2021</td> <td>23</td> <td>£2.00</td> <td>£46.00</td> </tr> <tr> <td>18/01/2021</td> <td>44</td> <td>£1.50</td> <td>£66.00</td> </tr> <tr> <td>25/01/2021</td> <td>24</td> <td>£2.00</td> <td>£48.00</td> </tr> <tr> <td>01/02/2021</td> <td>59</td> <td>£1.50</td> <td>£88.50</td> </tr> </tbody> </table>	Week Beginning	Number of Players	Entry Fee	Income	04/01/2021	22	£2.00	£44.00	11/01/2021	50	£1.50	£75.00	18/01/2021	60	£1.50	£90.00	25/01/2021	43	£1.50	£64.50	01/02/2021	42	£1.50	£63.00	Week Beginning	Number of Players	Entry Fee	Income	04/01/2021	20	£2.00	£40.00	11/01/2021	23	£2.00	£46.00	18/01/2021	44	£1.50	£66.00	25/01/2021	24	£2.00	£48.00	01/02/2021	59	£1.50	£88.50	
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	<p>B6 Title is in the page or report header – mark from design view only (do not accept title in detail section)</p>		1																																																
	<p>B7 Title is as given – mark from design or print view</p>	<p>Ignore case, ignore minor spelling errors</p>	1																																																
	<p>B8 Grouped by venue– mark from design view only</p>		1																																																
	<p>B9 Total income for venue uses correct formula e.g. =Sum(Income)</p>	<p>Accept truncation in design view if print view tallies</p>	1																																																

	B10	Total income for overall income uses correct formula e.g. =Sum(Income)	Accept truncation in design view if print view tallies	1
	B11	Total Income calculated in venue header – mark from design view		1
	B12	Overall Income calculated in report footer - mark from design view		1
	B13	Monetary values formatted as currency for generated fields – mark from design or print view		1
	B14	Report is as given	Checking spelling, case, layout etc, truncation vertical/horizontal.	1
Total				9
Total for question 2				20

Question number	Answer	Additional Guidance	Mark
3(a)	<p>Query for Chart</p>  <p>The screenshot shows a query design grid for a chart. The design grid is based on two tables: tblQuizType and tblQuiz. The design grid shows the following fields: Quiz Type: quiz_type, Times Used: quiz_id, and an empty field. The criteria for Times Used is >=14. The Show checkbox is checked for Times Used, and the Criteria checkbox is checked for Times Used.</p>		
A1	No inappropriate fields included		1
A2	Times used calculated correctly <ul style="list-style-type: none"> Count(quiz_id) 	Any field from quiz table is appropriate for the count	1
A3	Criteria correct for number of times used <ul style="list-style-type: none"> >=14 >13 		1
Total			3

Question number	Answer	Additional Guidance	Mark								
3(b)	<p>Chart</p>  <table border="1" data-bbox="450 331 835 459"> <thead> <tr> <th>Quiz Type</th> <th>Times Used</th> </tr> </thead> <tbody> <tr> <td>General Knowledge</td> <td>14</td> </tr> <tr> <td>History</td> <td>16</td> </tr> <tr> <td>Music</td> <td>16</td> </tr> </tbody> </table> <p>Bar Chart: Quiz types that have been used 14 or more times. Y-axis: Number of Times Used (0-18). X-axis: Quiz Type. Bars: General Knowledge (14), History (16), Music (16).</p> <p>Pie Chart: Quiz types that have been used 14 or more times. Legend: General Knowledge (blue), History (orange), Music (grey). Slices: General Knowledge (14), History (16), Music (16).</p>	Quiz Type	Times Used	General Knowledge	14	History	16	Music	16		
Quiz Type	Times Used										
General Knowledge	14										
History	16										
Music	16										
B1	Bar/column/pie chart created		1								
B2	Meaningful chart title used		1								
B3	Axis shows quiz type (or legend for pie chart)		1								
B4	Bar/column <ul style="list-style-type: none"> At least one axis shows suitable label Pie <ul style="list-style-type: none"> Data values are shown 		1								
B5	Bar/column <ul style="list-style-type: none"> Axis contains suitable scale Or data values are shown Pie		1								

		<ul style="list-style-type: none"> Data values are shown 		
	B6	<p>Chart is fit for purpose</p> <p>Bar/column</p> <ul style="list-style-type: none"> No legend Appropriate sizing of elements on page (e.g. title larger than axis labels, data labels) <p>Pie</p> <ul style="list-style-type: none"> Appropriate sizing of elements on page (e.g. title larger than legend labels, data labels) 	Ignore case and minor spelling errorsB	1
Total				6
Total for question 3				9

Question number	Answer	Additional Guidance	Mark
4	Dashboard		
	A1	Appropriate heading and 3 appropriately labelled buttons	1
	A2	Data edit form would open	1
	A3	Query from 2(a)(i) would run	1
	Number of times quiz type used		
	A4	Message box with appropriate message would appear when button clicked	1
	A5	Chart or query would open depending on the option chosen	1
Total			5
Total for question 4			5

Question number	Answer	Additional Guidance	Mark
5	<p>Indicative content</p> <p><i>Factors</i></p> <ul style="list-style-type: none"> • Presence check used when the data must be present before the record is saved • Range check used when there is a specific range of values for a field • Lookup check used to lookup data from another table • List check used when there is a specific list of values for a field • Format (picture) check used when a field has exactly the same format for each value • Length of data check used when the length of the data in a field has to be limited <p><i>Consideration and significance</i></p> <p>Setter table</p> <ul style="list-style-type: none"> • Presence: setter_last_name and setter_email • Format check: email <p>Quiz type table</p> <ul style="list-style-type: none"> • Presence: quiz_type field <p>Quiz table</p> <ul style="list-style-type: none"> • Presence: all non-key fields other than num_player and num_teams (cannot be sure quiz is created after or before the quiz takes place) • Quiz_setter_id, Quiz_venue_id, quiz_type_id lookup checks. All foreign keys so can lookup to the tables where they are primary keys <p>Range checks would not be suitable in any of the tables.</p> <p>List checks would not be suitable in any of the tables.</p> <p>Length of data checks could be set on all text fields as none would use 255 characters.</p>		9

Level	Mark	Descriptor
	0	No Awardable content
Level 1	1-3	<ul style="list-style-type: none"> • Applies understanding with limited coherence, showing limited understanding of the given issue. • Assessment of solution is superficial or unbalanced, and judgements lack support from evidence.
Level 2	4-6	<ul style="list-style-type: none"> • Applies understanding to make some coherent connections, showing some understanding of the given issue. • Assessment of solution is partially developed, but this may be unbalanced, using evidence to support some judgements.
Level 3	7-9	<ul style="list-style-type: none"> • Applies understanding coherently, showing a thorough understanding of the given issue. • Assessment of solution is balanced and developed, using evidence to support judgements throughout.
		Total for question
		9

