
HANDOUT FOR CHAPTER 13

DATABASES

Marking Scheme

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1 (a) – 7

[1]

- (b) – Brochure No
– Uniquely identifies each property

[2]

- (c) Garage – Boolean
Number of Bedrooms – Number/Integer/Single
Price in \$ – Number/Single/Real/Currency

[3]

- (d) 399000 H13
450000 H10

[2]

(e)

Field:	Property Type	Garage	Price in \$	Brochure No
Table:	PROPERTY	PROPERTY	PROPERTY	PROPERTY
Sort:				
Show:	x		x	x
Criteria:		True	< 200000	
or:				

or

Field:	Property Type	Garage	Price in \$	Brochure No
Table:	PROPERTY	PROPERTY	PROPERTY	PROPERTY
Sort:				
Show:	x		x	x
Criteria:		Yes	< 200000	
or:				

or

Field:	Property Type	Garage	Price in \$	Brochure No
Table:	PROPERTY	PROPERTY	PROPERTY	PROPERTY
Sort:				
Show:	x		x	x
Criteria:		=Yes	< 200000	
or:				

or

Field:	Property Type	Garage	Price in \$	Brochure No
Table:	PROPERTY	PROPERTY	PROPERTY	PROPERTY
Sort:				
Show:	x		x	x
Criteria:		=-1	< 200000	
or:				
	(1 mark)	(1 mark)	(1 mark)	(1 mark)

[4]

2 (a) – 7 [1]

(b) – Class ID
– Uniquely identifies each student [2]

(c) Diana Abur, Paul Smith
– both names
– correct order [2]

(d)

Field:	Student Name	Maths	English
Table:	MARKS	MARKS	MARKS
Sort:			
Show:	x		
Criteria:		<40	<40
or:			

(1 mark)

(1 mark)

(1 mark)

[3]

3 (a) – all (fields) have (1 mark) duplicate entries (1 mark)

– none (of the fields) (1 mark) have unique entries(1 mark)

[2]

(b) – e.g. StaffNumber

– Uniquely identifies each member of staff//no duplicates//different for each member of staff

[2]

(c)

Field:	Department	Name		
Table:	STAFFPHONE	STAFFPHONE		
Sort:	Ascending	Ascending		
Show:	x	x		
Criteria:				
or:				

(2 marks)

(2 marks)

(1 mark for correct order and number of fields shown)

[5]

4 (a) – 7 [1]

(b) – Brochure Number.....
– Uniquely identifies each record/each Brochure Number different/no duplicates [2]

(c) – Number of Seats – number/integer
– Price in \$ – currency/real [2]

(d) 1 mark for each correct result, 1 mark for the results in descending order of price

– Recliner sofa 1,200 RS23
– Recliner chair 600 RC01 [3]

(e)

Field:	Brochure Number	Material	Colour	Price in \$	Number of Seats
Table:	SOFASELECT	SOFASELECT	SOFASELECT	SOFASELECT	SOFASELECT
Sort:					
Show:	x	x	x	x	
Criteria:					>2
or:					
	(1 mark)	(1 mark)	(1 mark)	(1 mark)	(1 mark)

[5]

Question	Answer	Marks																																										
5(a)	Any one from: -It is the primary key/key field with unique data -(Fixed length) text field with alphanumeric data	1																																										
5(b)	<table><tr><th>Field name</th><th>Data type</th></tr><tr><td>ScreenSize</td><td>Number</td></tr><tr><td>3D</td><td>Boolean</td></tr><tr><td>CurvedFlat</td><td>Text</td></tr><tr><td>Internet</td><td>Boolean</td></tr><tr><td>HDD</td><td>Boolean</td></tr><tr><td>Price</td><td>Currency</td></tr></table> <p>1 mark for every two correct data types</p>	Field name	Data type	ScreenSize	Number	3D	Boolean	CurvedFlat	Text	Internet	Boolean	HDD	Boolean	Price	Currency	3																												
Field name	Data type																																											
ScreenSize	Number																																											
3D	Boolean																																											
CurvedFlat	Text																																											
Internet	Boolean																																											
HDD	Boolean																																											
Price	Currency																																											
5(c)	<table><tr><td>Field:</td><td>TVID</td><td>ScreenSize</td><td>CurvedFlat</td><td>HDD</td><td>Price</td></tr><tr><td>Table:</td><td>TVSTOCK</td><td>TVSTOCK</td><td>TVSTOCK</td><td>TVSTOCK</td><td>TVSTOCK</td></tr><tr><td>Sort:</td><td></td><td></td><td></td><td></td><td>Ascending</td></tr><tr><td>Show:</td><td>X</td><td>X</td><td></td><td></td><td>X</td></tr><tr><td>Criteria:</td><td></td><td></td><td>=“CV”</td><td>YES</td><td></td></tr><tr><td>or:</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td>(1 Mark)</td><td>(1 Mark)</td><td>(1 Mark)</td><td>(1 Mark)</td><td>(1 Mark)</td></tr></table>	Field:	TVID	ScreenSize	CurvedFlat	HDD	Price	Table:	TVSTOCK	TVSTOCK	TVSTOCK	TVSTOCK	TVSTOCK	Sort:					Ascending	Show:	X	X			X	Criteria:			=“CV”	YES		or:							(1 Mark)	(1 Mark)	(1 Mark)	(1 Mark)	(1 Mark)	5
Field:	TVID	ScreenSize	CurvedFlat	HDD	Price																																							
Table:	TVSTOCK	TVSTOCK	TVSTOCK	TVSTOCK	TVSTOCK																																							
Sort:					Ascending																																							
Show:	X	X			X																																							
Criteria:			=“CV”	YES																																								
or:																																												
	(1 Mark)	(1 Mark)	(1 Mark)	(1 Mark)	(1 Mark)																																							

Question	Answer	Marks
6(a)	<p>for each field name (1), data type and sample (1)</p> <p>The following are examples there are many different correct answers.</p> <p>-EarTag (1), text, EAR1011 (1)</p> <p>-DOB (1), date, 4/3/2017 (1)</p> <p>-Gender (1), text, M (1)</p> <p>-Weight (1), number, 5.9 (1)</p>	8









Question		Answer		Marks	
6(b)	EarTag				1
6(c)	Field:	EarTag	Gender	Weight	3
	Table:	SHEEP	SHEEP	SHEEP	
	Sort:				
	Show:	x			
	Criteria:		= 'M'	> 10	
	or:				
		(1 mark)	(1 mark)	(1 mark)	

Question	Answer	Marks
7(a)	Fields 5 Records 8	2
7(b)	Any two from: Length check Type check Presence check Format check	2

Question	Answer					Marks
7(c)	Field:	Type	Sold Out	Date	Title	4
	Table:	PERFORMANCE	PERFORMANCE	PERFORMANCE	PERFORMANCE	
	Sort:					
	Show:			X	X	
	Criteria:	Like “Jazz”	False			
	or:					
	One mark per correct column.					

Question	Answer				Marks																														
8(a)	Fields 5				1																														
8(b)	One mark description of new code that will allow more than 1000 values One mark for example matching candidate's description Example Use a new character instead of N TT345				2																														
8(c)	<table><tr><td>Field:</td><td>At Risk</td><td>Age in Years</td><td>Type</td><td>Map Position</td></tr><tr><td>Table:</td><td>TREES</td><td>TREES</td><td>TREES</td><td>TREES</td></tr><tr><td>Sort:</td><td></td><td></td><td></td><td></td></tr><tr><td>Show:</td><td></td><td></td><td>X</td><td>X</td></tr><tr><td>Criteria:</td><td>True</td><td>>100</td><td></td><td></td></tr><tr><td>or:</td><td></td><td></td><td></td><td></td></tr></table> One mark per correct column				Field:	At Risk	Age in Years	Type	Map Position	Table:	TREES	TREES	TREES	TREES	Sort:					Show:			X	X	Criteria:	True	>100			or:					4
Field:	At Risk	Age in Years	Type	Map Position																															
Table:	TREES	TREES	TREES	TREES																															
Sort:																																			
Show:			X	X																															
Criteria:	True	>100																																	
or:																																			

Question	Answer	Marks
9(a)	One mark for correct answer 20	1
9(b)(i)	One mark for correct answer CatNo	1
9(b)(ii)	One mark for correct answer It is a unique identifier	1

Question	Answer	Marks																																				
9(c)	<p>One mark for every two correct data types</p> <table><tr><th>Field</th><th>Data Type</th></tr><tr><td>CatNo</td><td>Text</td></tr><tr><td>Title</td><td>Text</td></tr><tr><td>Genre 1</td><td>Text</td></tr><tr><td>Stream</td><td>Boolean / Text</td></tr></table>	Field	Data Type	CatNo	Text	Title	Text	Genre 1	Text	Stream	Boolean / Text	2																										
Field	Data Type																																					
CatNo	Text																																					
Title	Text																																					
Genre 1	Text																																					
Stream	Boolean / Text																																					
9(d)	<p>One mark for each correct row</p> <table><tr><td>18m02</td><td>Golfwatch</td><td>Yes</td><td>No</td><td>Yes</td></tr><tr><td>18m03</td><td>Chair 27</td><td>Yes</td><td>Yes</td><td>No</td></tr></table> <p>Accept if drawn in a table, but don't allow any punctuation</p>	18m02	Golfwatch	Yes	No	Yes	18m03	Chair 27	Yes	Yes	No	2																										
18m02	Golfwatch	Yes	No	Yes																																		
18m03	Chair 27	Yes	Yes	No																																		
9(e)	<table><tr><td>Field:</td><td>CatNo</td><td>Title</td><td>Genre 1</td><td>Genre 2</td><td>Stream</td></tr><tr><td>Table:</td><td>2018MOV</td><td>2018MOV</td><td>2018MOV</td><td>2018MOV</td><td>2018MOV</td></tr><tr><td>Sort:</td><td></td><td>Ascending</td><td></td><td></td><td></td></tr><tr><td>Show:</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td></td><td></td><td></td></tr><tr><td>Criteria:</td><td></td><td></td><td>= "Sci-Fi"</td><td></td><td>Yes</td></tr><tr><td>or:</td><td></td><td></td><td></td><td>= "Sci-Fi"</td><td>Yes</td></tr></table> <div><div> 1 mark</div><div>  1 mark</div><div>  1 mark</div><div>  1 mark </div></div> <p>One mark per completely correct column / group of columns as shown.</p>	Field:	CatNo	Title	Genre 1	Genre 2	Stream	Table:	2018MOV	2018MOV	2018MOV	2018MOV	2018MOV	Sort:		Ascending				Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				Criteria:			= "Sci-Fi"		Yes	or:				= "Sci-Fi"	Yes	4
Field:	CatNo	Title	Genre 1	Genre 2	Stream																																	
Table:	2018MOV	2018MOV	2018MOV	2018MOV	2018MOV																																	
Sort:		Ascending																																				
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																				
Criteria:			= "Sci-Fi"		Yes																																	
or:				= "Sci-Fi"	Yes																																	

Question	Answer						Marks																																										
10(a)	Each data value is unique						1																																										
10(b)	10 records						1																																										
10(c)	Bev07 Lemonade Bev01 Cola 1 mark for each correct content 1 mark for each correct format 1 mark for correct order						3																																										
10(d)	<table><tr><td>Field:</td><td>BevNo</td><td>BevName</td><td>Calories</td><td></td><td></td><td></td></tr><tr><td>Table:</td><td>BEVERAGES</td><td>BEVERAGES</td><td>BEVERAGES</td><td></td><td></td><td></td></tr><tr><td>Sort:</td><td></td><td>Ascending</td><td></td><td></td><td></td><td></td></tr><tr><td>Show:</td><td>X</td><td>X</td><td></td><td></td><td></td><td></td></tr><tr><td>Criteria:</td><td></td><td></td><td>>45</td><td></td><td></td><td></td></tr><tr><td>or:</td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> 1 mark for correct Field row 1 mark for Table and Sort rows 1 mark for correct Show row 1 mark for correct Criteria rows						Field:	BevNo	BevName	Calories				Table:	BEVERAGES	BEVERAGES	BEVERAGES				Sort:		Ascending					Show:	X	X					Criteria:			>45				or:							4
Field:	BevNo	BevName	Calories																																														
Table:	BEVERAGES	BEVERAGES	BEVERAGES																																														
Sort:		Ascending																																															
Show:	X	X																																															
Criteria:			>45																																														
or:																																																	

Question	Answer	Marks																																																						
11(a)	Passengers	1																																																						
11(b)	<p>Explanation</p> <p>Three from:</p> <ul style="list-style-type: none"><input type="checkbox"/> Flight number not displayed<input type="checkbox"/> Passengers displayed when should not be<input type="checkbox"/> Departure time = not ><input type="checkbox"/> "Freight and passengers" flight not excluded <p>Revised QBE – answers shown are examples only</p> <p>1 mark per bullet</p> <ul style="list-style-type: none"><input type="checkbox"/> correct field and table names (either 3 or 4 columns) must include Notes, Flight number and Departure time<input type="checkbox"/> correct show<input type="checkbox"/> correct time criteria for the candidate’s QBE grid<input type="checkbox"/> use of criteria to select planes with passengers only <table><tr><td>Field:</td><td>Flight number</td><td>Passengers</td><td>Departure time</td><td>Notes</td></tr><tr><td>Table:</td><td>FLIGHT</td><td>FLIGHT</td><td>FLIGHT</td><td>FLIGHT</td></tr><tr><td>Sort:</td><td></td><td></td><td></td><td></td></tr><tr><td>Show:</td><td>X</td><td></td><td></td><td></td></tr><tr><td>Criteria:</td><td></td><td>=Y</td><td>>10:00</td><td><> "Freight and passengers"</td></tr><tr><td>or:</td><td></td><td></td><td></td><td></td></tr></table> <p>OR</p> <table><tr><td>Field:</td><td>Flight number</td><td>Departure time</td><td>Notes</td></tr><tr><td>Table:</td><td>FLIGHT</td><td>FLIGHT</td><td>FLIGHT</td></tr><tr><td>Sort:</td><td></td><td></td><td></td></tr><tr><td>Show:</td><td>X</td><td></td><td></td></tr><tr><td>Criteria:</td><td></td><td>>10:00</td><td>= "Passengers only"</td></tr><tr><td>or:</td><td></td><td>>10:00</td><td>= "Private passenger flight"</td></tr></table>	Field:	Flight number	Passengers	Departure time	Notes	Table:	FLIGHT	FLIGHT	FLIGHT	FLIGHT	Sort:					Show:	X				Criteria:		=Y	>10:00	<> "Freight and passengers"	or:					Field:	Flight number	Departure time	Notes	Table:	FLIGHT	FLIGHT	FLIGHT	Sort:				Show:	X			Criteria:		>10:00	= "Passengers only"	or:		>10:00	= "Private passenger flight"	7
Field:	Flight number	Passengers	Departure time	Notes																																																				
Table:	FLIGHT	FLIGHT	FLIGHT	FLIGHT																																																				
Sort:																																																								
Show:	X																																																							
Criteria:		=Y	>10:00	<> "Freight and passengers"																																																				
or:																																																								
Field:	Flight number	Departure time	Notes																																																					
Table:	FLIGHT	FLIGHT	FLIGHT																																																					
Sort:																																																								
Show:	X																																																							
Criteria:		>10:00	= "Passengers only"																																																					
or:		>10:00	= "Private passenger flight"																																																					

Question	Answer	Marks																														
12(a)	Number is repeated/not unique	1																														
12(b)	<p>Three from: Train number not displayed Departure time before 8:30 Criteria of =Y for Platform not required/incorrect All late trains will be shown/the condition should be on the line above</p> <p>4 marks, one mark for each correct column</p> <table><tr><td>Field:</td><td>Train Number</td><td>Platform</td><td>Departure Time</td><td>Status</td></tr><tr><td>Table:</td><td>TRAIN</td><td>TRAIN</td><td>TRAIN</td><td>TRAIN</td></tr><tr><td>Sort:</td><td></td><td></td><td></td><td></td></tr><tr><td>Show:</td><td>X</td><td>X</td><td></td><td></td></tr><tr><td>Criteria:</td><td></td><td></td><td>> 08:30</td><td>= "Late"</td></tr><tr><td>or:</td><td></td><td></td><td></td><td></td></tr></table>	Field:	Train Number	Platform	Departure Time	Status	Table:	TRAIN	TRAIN	TRAIN	TRAIN	Sort:					Show:	X	X			Criteria:			> 08:30	= "Late"	or:					7
Field:	Train Number	Platform	Departure Time	Status																												
Table:	TRAIN	TRAIN	TRAIN	TRAIN																												
Sort:																																
Show:	X	X																														
Criteria:			> 08:30	= "Late"																												
or:																																

Question	Answer					Marks																														
13(a)	To uniquely identify a product (in TOOLS)					1																														
13(b)	<div>HS50 Hose (50 metres) 60</div> <div>GFLG Garden Fork 50</div> <div>LMPT Lawn Mower (Petrol) 25</div> <div>One mark for correct data</div> <div>One mark for correct format</div> <div>One mark for data in correct order</div>					3																														
13(c)	<div><div>Field:</div><table><tr><td>Code</td><td>Description</td><td>Quantity_Stock</td><td></td><td></td></tr><tr><td>Table:</td><td>TOOLS</td><td>TOOLS</td><td>TOOLS</td><td></td></tr><tr><td>Sort:</td><td>Ascending</td><td></td><td></td><td></td></tr><tr><td>Show:</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Criteria:</td><td></td><td></td><td><25</td><td></td></tr><tr><td>or:</td><td></td><td></td><td></td><td></td></tr></table></div> <div>One mark for each completely correct column (max three)</div>					Code	Description	Quantity_Stock			Table:	TOOLS	TOOLS	TOOLS		Sort:	Ascending				Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Criteria:			<25		or:					3
Code	Description	Quantity_Stock																																		
Table:	TOOLS	TOOLS	TOOLS																																	
Sort:	Ascending																																			
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																																
Criteria:			<25																																	
or:																																				

Question	Answer				Marks																																			
14(a)	One mark for field and one mark for reason Field Juice code Reason only unique identifier				2																																			
14(b)	<table><tr><td>Field:</td><td>Fruit 1</td><td>Fruit 2</td><td>Size</td><td>Stock level</td></tr><tr><td>Table:</td><td>JUICE</td><td>JUICE</td><td>JUICE</td><td>JUICE</td></tr><tr><td>Sort:</td><td></td><td></td><td></td><td></td></tr><tr><td>Show:</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td>Criteria:</td><td>= "Apple"</td><td>= "Apple"</td><td></td><td></td></tr><tr><td>or:</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table> <p>One mark for each correct column</p>				Field:	Fruit 1	Fruit 2	Size	Stock level	Table:	JUICE	JUICE	JUICE	JUICE	Sort:					Show:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Criteria:	= "Apple"	= "Apple"			or:										4
Field:	Fruit 1	Fruit 2	Size	Stock level																																				
Table:	JUICE	JUICE	JUICE	JUICE																																				
Sort:																																								
Show:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																				
Criteria:	= "Apple"	= "Apple"																																						
or:																																								

Question	Answer											
15(a)	<table><tr><th>Fieldname</th><th>Purpose of field contents</th></tr><tr><td>CodeNo</td><td>Primary key to identify products</td></tr><tr><td>Product</td><td>To describe the product</td></tr><tr><td>Price</td><td>The price of individual item</td></tr><tr><td>NumInStock</td><td>How many are in stock</td></tr></table> <p>One mark for each correct fieldname and description pair</p>	Fieldname	Purpose of field contents	CodeNo	Primary key to identify products	Product	To describe the product	Price	The price of individual item	NumInStock	How many are in stock	
Fieldname	Purpose of field contents											
CodeNo	Primary key to identify products											
Product	To describe the product											
Price	The price of individual item											
NumInStock	How many are in stock											

Question	Answer				Marks																														
7(b)	<table><tr><td>Field:</td><td>CodeNo</td><td>Product</td><td>NumInStock</td><td></td></tr><tr><td>Table:</td><td>STOCK</td><td>STOCK</td><td>STOCK</td><td></td></tr><tr><td>Sort:</td><td></td><td></td><td></td><td></td></tr><tr><td>Show:</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Criteria:</td><td></td><td></td><td><20</td><td></td></tr><tr><td>or:</td><td></td><td></td><td></td><td></td></tr></table>				Field:	CodeNo	Product	NumInStock		Table:	STOCK	STOCK	STOCK		Sort:					Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Criteria:			<20		or:					3
Field:	CodeNo	Product	NumInStock																																
Table:	STOCK	STOCK	STOCK																																
Sort:																																			
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																															
Criteria:			<20																																
or:																																			
One mark for each completely correct column (max three)																																			