

Topic: 2.3 Databases

May/June 2007:

- 1 Explain, using examples where appropriate, the meaning of these computer terms.
(b) relational database [2]

Oct/Nov 2006:

A car dealer uses a database to keep details of cars in stock. Part of the stock file is shown below.

RegNo	Make	Model	Colour	Doors	Engine(cc)	Price(\$)
AT 15 APC	Renault	Laguna	Black	5	1600	5800
NX 21 TPQ	Opel	Corsa	Green	3	1400	2000
WS 46 ART	VW	Golf	Blue	3	1600	3400
RP 09 NTR	VW	Golf	Red	5	2000	6350
VV 81 KKT	Proton	Wira	White	4	1300	2200
NK 55 ARM	VW	Golf	White	3	1800	4100

- (a) (i) State the fieldname that should be used as the key field.
(ii) Explain the purpose of a key field.
(b) The following search condition is input:
(Price(\$) < 5000) AND (Model = Golf)
Write down the records that match the above search condition using only RegNo.
(c) Write down a search condition to find cars with an Engine greater than 1400cc or which have less than 5 Doors.
(d) When a car is sold, the sale needs to be linked to a customer file. Suggest a new field which could be used to link the stock file to the customer file.

May/June 2007:

A hospital has decided to computerise its administration system.

- (a) Give three ways this could affect the hospital workers.
The hospital will be using a database which holds confidential personal data.
(b) State two precautions that the hospital should take to prevent unauthorised access to the data.
(c) Describe how the database could be recovered if it became corrupted.
(d) Give one example, in each case, of when it would be necessary to amend data, delete data and insert data into the patient database.



Topic: 2.3 Databases

Oct/Nov 2007:

A school Science department is going to use a database to record details about its equipment.

- (a) Give two advantages of using a computer system rather than a manual filing system.
(b) Part of the database is shown below:

Equipment	Code No	Quantity in Stock	Need to re-order?	Supplier Name	Price (\$)	Stock Value (\$)
Beaker	01043	25	Y	Labquip	1.04	26.00
Test tube	01051	200	N	Labquip	0.40	80.00
Clamp stand	01065	51	N	Anglera	3.25	165.75
Tongs	01151	23	Y	Anglera	0.55	12.65
Spatula	01222	62	N	Anglera	0.66	40.92
Flask	01341	15	Y	Labquip	1.70	27.50

- (i) As data is entered it needs to be verified. Describe one way this could be done.
(ii) Data also needs to be validated. Using fields from the database as examples, describe two different validation checks which could be performed on the data.

Oct/Nov 2008:

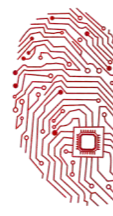
To gain access to a database, a user must first type in a user ID and then a password which needs to be verified.

- (a) How is a password usually verified?
(b) In spite of these safeguards, unauthorised access to the database is still possible. What could be done:

- (i) to prevent data being used by unauthorised people?
(ii) to prevent loss of data once the database has been illegally accessed?

- (c) Personal data is protected to some extent by a Data Protection Act. Give two requirements of a Data Protection Act.





Topic: 2.3 Databases

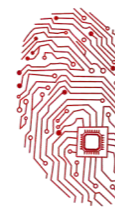
Oct/Nov 2008:

15) A database has been produced showing solar system statistics.

Name of planet	Distance from sun ($\times 10^6$) (km)	Number of moons	Number of rings	Maximum surface temperature ($^{\circ}\text{C}$)	Diameter (km)
Mercury	58	0	0	427	4880
Venus	108	0	0	480	12100
Earth	150	1	0	58	12756
Mars	228	2	0	17	6787
Jupiter	778	16	3	-150	143200
Saturn	1427	18	1000	-180	120000
Uranus	2871	15	11	-210	51800
Neptune	4497	8	4	-214	49528
Pluto	5914	1	0	-220	2330

- (a) How many records are there in this database?
- (b) The following search condition was typed in:
(Number of moons > 0) AND (Diameter (km) < 15000)
Using Name of planet, write down the results of this search:
- (c) Write down a search condition to find out which planets have rings or have a diameter more than 50000 km.
- (d) Name a different validation check for each of the following fields.
 - (i) Maximum surface temperature ($^{\circ}\text{C}$)
 - (ii) Name of planet
- (e) The data in the database was sorted in descending order using the Number of moons field. Using Name of planet only, write down the results of this sort.





Topic: 2.3 Databases

Oct/Nov 2009:

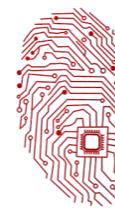
A radio station keeps a database of all its music CDs. Here is part of this database:

Reference Number	CD title	number of tracks	special edition	CD length (mins)	number of hit tracks
1111	Afternoon Glory	12	N	55	1
1112	Stone Tulips	10	N	42	3
1113	Aftermath	8	N	33	0
1114	Major Peppers	15	Y	72	5
1115	Seaside	9	N	40	2
1116	Lookout	12	N	62	2
1117	Future Dreams	11	N	60	3
1118	Moonlight	14	Y	70	2

- (a) How many records are there in the database section?
- (b) If the following query was input:
(CD length (mins) < 60) AND (number of hit tracks > 1)
using Reference Number only, write down which data items would be output.
- (c) Write down a query to select which CDs are special edition or have more than 10 tracks.
- (d) The database is sorted in descending order on CD length (mins). Using Reference Number only, write down the order of the records following this sort.
- (e) The radio station has a phone-in service where a listener texts the title of the CD on their mobile phone. The popularity of each CD is then known and which CDs the radio station should play.
 - (i) How would this information be stored?
 - (ii) How could this information be linked to the database?

May/June 2009:

- Explain, using examples where appropriate, the meaning of these computer terms.
- (a) relational database



Topic: 2.3 Databases

May/June 2009:

17 A car sales company uses a database.
Here are three tables from the database:

New Car Sales

Customer Reference	Car Ordered	Specification	Delivery Date
151319	Cancelled order	None	Not applicable
162154	VW Golf	21215168	December 2008
171216	BMW 320i	07981624	February 2009

Customer Details

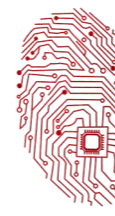
Customer Reference	Customer Name	Customer Address	Trade In?
141516	J Smith	7 Toll Road	No
151319	M Kyle	14 Coast Road	No
162154	D Khan	19 Main Street	Yes
165196	S Gogic	555 Trabant Road	No
171216	D Marques	21 Lakki Harbour	Yes

Car Manufacturer

Specification	Car Description	List of Extras	Cost Price (\$)
07981624	BMW 320i	C N O R V Z	48 500
21151198	VW Golf	A B C E T U	16 200
21215168	VW Golf	B D E F J L	21 000
31311115	Ford Focus	A P R S W	17 000

- (a) How many records are shown in the Customer Details table?
(b) (i) Which field connects the New Car Sales table with the Customer Details table?
(ii) Which field connects the New Car Sales table with the Car Manufacturer table?
(c) Give two reasons why List of Extras in the Car Manufacturer table is stored in code form.
(d) A customer goes into the showroom and the salesperson keys in 162154. What fields and information would be shown on the output screen?
(e) Give one advantage to the car sales company of holding customer information on a database.





Topic: 2.3 Databases

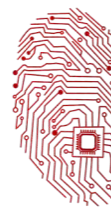
May/June 2010 P11:

A database has been set up to bring together information about the world's tallest buildings. A section of the database is shown below.

Ref No.	Building Name	City	Country	Year	No. of Floors	Height (m)	Height (ft)
TA1	Taipei 101	Taipei	Taiwan	2004	101	508	1667
MA1	Petronas Towers	Kuala Lumpur	Malaysia	1998	88	452	1483
US1	Sears Tower	Chicago	USA	1974	110	442	1451
CH1	Jiu Mao Building	Shanghai	China	1999	88	421	1381
CH2	Finance Centre	Hong Kong	China	2003	88	415	1362
CH3	CITIC Plaza	Guangzhan	China	1996	80	391	1283
CH4	Shun Hing Square	Shenzhen	China	1996	69	384	1260
US2	Empire State Building	New York	USA	1931	102	381	1250
CH5	Central Plaza	Hong Kong	China	1992	78	374	1227
CH6	Bank of China	Hong Kong	China	1989	70	367	1205
DU1	Emirates Tower	Dubai	Dubai	1999	54	355	1165
TA2	Tuntex Sky Tower	Kaohsiung	Taiwan	1997	85	348	1140

- (a) How many records are in the section of the database shown?
- (b) (b) Using Ref No. only, which records would be output if the following search condition was entered:
(Year < 1990) AND (Height (m) > 375)?
- (c) Write down a search condition to find out how many buildings are in China or how many buildings have more than 80 floors.
- (d) For each of the following fields give a different validation check.
Year
Ref No.
- (e) The database was sorted in descending order of Year. Using Ref No. only, write down the results of the sort:





Topic: 2.3 Databases

May/June 2010 P12:

11 A database has been set up showing information about cars:

Car ref	No of doors	Engine (litres)	CO ₂ (g/km)	Fuel used (km/litre)	No of cylinders
A	3	1.4	145	15.3	4
B	4	2.0	193	12.3	4
C	5	2.5	231	10.9	6
D	3	2.0	190	11.2	6
E	4	1.3	120	17.5	4
F	5	1.8	180	14.6	4
G	4	3.0	240	9.5	6
H	4	1.2	115	19.7	3

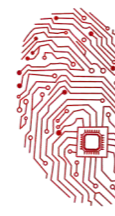
(a) Using Car ref only, write down which cars would be output if the following search condition was used:

(No of doors = 4) AND (Fuel used (km/litre) > 15)

(b) Write down a search condition to find out which cars have engines larger than 1.8 litres OR have CO₂ emissions higher than 150 g/km.

(c) The database is sorted in ascending order on Fuel used (km/litre). Using Car ref only, write down the results of the sort.





Topic: 2.3 Databases

Oct/Nov 2010:

10 A database has been set up to store information about aircraft. A section is shown below.

Ref No	Aircraft Name	Max Weight (kg)	Length (m)	Wing Span (m)	Max Speed (kph)
1001	An-225 Cossack	600 000	84	88	850
2001	Airbus A380F	591 950	73	80	951
3001	C-5 Galaxy	381 000	76	68	845
3002	Boeing 777-600	351 500	74	65	930
2002	Airbus A340-600	366 000	75	63	877
3003	Boeing 747	397 000	71	64	967
3004	Boeing 777	660 000	74	61	893
2003	Airbus A330-300	234 000	63	60	800
3005	Boeing 767	204 100	61	52	914
3006	B52 Fortress	221 400	49	56	927
3007	Boeing 757	123 400	54	38	914

- (a) How many fields are in each record?
- (b) Using Ref No only, what records would be output if the following search condition was entered:
(Max Weight(kg) > 350 000) AND (Wing Span(m) < 66)?
- (c) Write down the search condition to find out which aircraft have a length greater than 74 metres or have a maximum speed less than 900 kph.

14 An international bank keeps records of customer account details on a computer.

(a) It is necessary on occasions to:

- delete records
- amend records
- insert records

Give one example of when each of the above would need to be done. [3]

(b) A section of one record is shown below:

Frederick Parez	Rua Silva Paulet	5151 315 000	34	20 - 15 - 00	Br
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name address telephone number age branch country

(i) The branch and country are coded. Give a reason for this. [1]

(ii) One of the six fields is not appropriate.

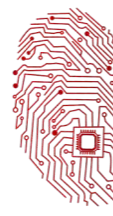
Name this field and give a reason for your choice. Suggest an improved field.

Name of field

Reason for choice

Improved field choice [3]





Topic: 2.3 Databases

May/June 2011:

A database showing the population of world cities has been produced. A section of the database is shown below.

Ref No	Name of City	Country	Area	City Population (m)	Urban Population (m)	Capital
1	Tokyo	Japan	Asia	33.2	34.1	Yes
2	New York	USA	America	17.8	21.9	No
3	Sao Paulo	Brazil	America	17.7	20.2	No
4	Seoul	S Korea	Asia	17.5	22.3	Yes
5	Mexico City	Mexico	America	17.4	22.7	Yes
6	Osaka	Japan	Asia	16.4	16.8	No
7	Manila	Philippines	Asia	14.8	14.9	Yes
8	Mumbai	India	Asia	14.4	19.7	No
9	Jakarta	Indonesia	Asia	14.3	17.2	Yes
10	Calcutta	India	Asia	12.7	15.6	No

- (a) How many records are shown above?
- (b) Using Ref No only, which records would be found if the following search condition was typed in (Country = "India" OR Area = "America") AND (Capital = "No")
- (c) Write a search condition to find the cities in Asia with a city population greater than 17 million OR an urban population greater than 20 million.
- (d) Give one advantage of using Y or N rather than Yes or No in the Capital column.

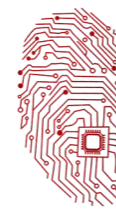
Oct/Nov 2011:

An airport has a number of hotels nearby. A database has been set up to give customers information to allow them to select a hotel.

Hotel Ref	Name of hotel	No. of stars	No. of rooms	Hotel parking	Price per person (\$)	Distance from airport (km)
H41	The Grand	3	45	Y	65	11
K22	Sleepy Inn	2	15	N	45	10
N15	Britannia	5	140	Y	150	4
L44	Beach Hotel	4	62	N	85	8
H30	Sea View	3	38	N	60	4
H21	Pyramid	3	25	N	70	5
N21	Superior	5	120	Y	200	2
K14	Travellers	2	15	N	45	10

- (a) How many records are shown in the database?
- (b) Which field in each record must be unique?
- (c) The following search condition was typed in:
(No. of stars > 3) OR (Hotel parking = Y)
Using Hotel Ref only, which records would be found?
- (d) Write down the search condition to find which hotels were less than 10 km from the airport and charged under \$100 per person.
- (e) The database was sorted into descending order using No. of rooms.
Using Hotel Ref only, write down the sorted order of records.





Topic: 2.3 Databases

Oct/Nov 2011:

A database has been set up to show details about countries. Part of the database is shown below.

Country code	Country	Continent	Area (millions sq km)	Population (millions)	Coastline	Currency
CH	China	Asia	9.6	1320	Yes	yuan
IN	India	Asia	3.8	1150	Yes	rupee
PO	Poland	Europe	0.3	39	Yes	zloty
BO	Bolivia	America	1.1	9	No	boliviano
TI	Tibet	Asia	1.2	2	No	yuan
BR	Brazil	America	8.5	192	Yes	real
RO	Romania	Europe	0.2	22	No	leu
SA	Saudi Arabia	Asia	2.2	28	Yes	riyal
ZA	Zambia	Africa	0.7	12	No	kwacha

- (a) How many fields are in each record?
- (b) Using Country code only, what would be output if the following search condition was used? (Population (millions) > 1000) OR (Continent = "Asia")
- (c) Write down a search condition to find which countries have a land area less than 3 million square km and also have a coastline.
- (d) If the database was sorted in descending order of population size, using Country code only, what would be the order of countries in the database?





Topic: 2.3 Databases

May/June 2012:

A database was set up to show the properties of certain chemical elements. Part of the database is shown below.

Name of element	Element Symbol	Atomic Number	Atomic Weight	Melting Point (C)	Boiling Point (C)	State at room temp
oxygen	O	8	16	- 218	- 183	gas
iron	Fe	26	56	1538	2861	solid
mercury	Hg	80	201	- 38	356	liquid
bromine	Br	35	80	- 7	59	liquid
osmium	Os	76	190	3033	5012	solid
caesium	Cs	55	133	28	671	solid
gallium	Ga	31	70	30	2204	solid
argon	Ar	18	40	- 189	- 186	gas
silver	Ag	47	108	961	2162	solid

(a) How many fields are in each record?

(b) The following search condition was entered:

(Melting Point (C) < 40) AND (Atomic Weight > 100)

Using Element Symbol only, which records would be output?

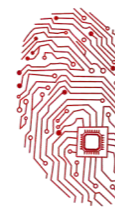
(c) We need to know which elements have an atomic number greater than 50 and are solid at room temperature.

Write down the search condition to find out these elements.

(d) The data are to be sorted in descending order of Boiling Point (C).

Write down the new order of records using the Element Symbol only.





Topic: 2.3 Databases

Oct/Nov 2012:

A database was set up showing the largest ocean-going liners. Part of the database is shown below.

Liner ID	Year built	Gross Tonnage	Country of Registration	Country of Construction
OA	2009	225282	Norway	Finland
IN	2008	154407	Norway	Finland
QM	2004	148528	UK	France
EX	2000	137308	Norway	Finland
VO	1999	137276	Norway	Finland
GP	1997	108865	UK	Italy
DE	1996	101509	USA	Italy
SP	1995	77499	UK	Italy
SO	1988	73192	Norway	France
FR	1972	66343	France	France
QE	1940	86673	UK	UK
NO	1935	79280	France	France
MJ	1922	56561	UK	Germany
TI	1912	46329	UK	UK
MA	1907	31938	UK	UK

- (a) How many records are shown in the above part?
- (b) Using Liner ID only, what would be output if the following search condition was typed in:
(Year built < 2000) AND (Country of Registration = Country of Construction)?
- (c) Write the search condition to find out which liners have a gross tonnage larger than 80 000 or are registered in the UK.





Topic: 2.3 Databases

May/June 2013:

A database was set up to compare oil companies. A section of the database is shown below:

Code	Name of company	No of employees	No of countries	Head office	Profits (billion \$)	Share price (\$)
AR	Arrows	60000	30	Americas	8.0	39.00
GZ	Gazjeti	35000	4	Asia	5.0	44.50
KO	Konoco	40000	22	Americas	10.0	18.55
OS	Oilbras	56000	11	Americas	4.0	59.60
SD	Sand Oil	102000	51	Europe	12.0	15.30
SN	Southern Oil	50000	15	Americas	11.0	10.90
ST	Static Oil	80000	31	Americas	10.0	52.05
SU	Summation	70000	40	Europe	9.0	30.40
WP	Wasp Petrol	90000	44	Europe	15.0	92.80

(a) How many fields are there in each record?

(b) The following search condition was entered:

(No of countries < 30) AND (Head office = "Americas")

Using Code only, which records would be output?

(c) What search condition is needed to find out which oil companies have a share price less than \$50 or whose profits were greater than 8 billion dollars?





Topic: 2.3 Databases

May/June 2013:

A survey of motorways was carried out and a database was produced. A section of the database is shown below.

Motorway ID	Length (km)	Cars per day	Toll charge per km (\$)	Number of lanes
M1	100	50 000	0.60	2
M2	210	75 000	0.40	3
M3	180	60 000	0.50	4
M4	40	20 000	0.30	3
M5	25	15 000	0.10	2
M6	100	40 000	0.70	4
M7	30	10 000	0.40	2
M8	150	60 000	0.60	4

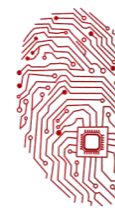
(a) How many fields and how many records are shown?

- (i) number of fields
- (ii) number of records

(b) Using Motorway ID only, what would be output if the following search condition was used?
(Length (km) > 100) AND (Number of lanes > 3)

(c) What search condition is needed to find the motorways where the number of cars per day exceeds 50 000 or the toll charge per kilometre is greater than \$0.50?





Topic: 2.3 Databases

Oct/Nov 2013 P12:

3 A motor car manufacturer offers various combinations of

- seat colours
- seat materials
- car paint colours

A database was set up to help customers choose which seat and paint combinations were possible.

code	seat material			car paint colours						
	cloth	leather	seat colour	white	red	black	blue	green	silver	grey
CB	Y	N	black	Y	Y	Y	Y	Y	Y	Y
LB	N	Y	black	N	Y	N	N	N	Y	Y
CC	Y	N	cream	N	Y	Y	Y	N	N	N
LC	N	Y	cream	N	Y	Y	Y	N	N	Y
CG	Y	N	grey	N	Y	Y	Y	Y	Y	N
LG	N	Y	grey	N	Y	N	Y	N	Y	Y
CR	Y	N	red	Y	N	Y	N	N	Y	Y
LR	N	Y	red	Y	N	Y	N	N	Y	Y
CL	Y	N	lime	N	N	N	Y	N	N	N
LL	N	Y	lime	N	N	Y	Y	Y	N	N

(NOTE: N = no, not a possible combination, Y = yes, combination is possible)

(a) How many records are shown in the database? [1]

(b) The following search condition was entered:

(cloth= "Y") AND (blue = "Y")

Using code only, which records will be found? [2]

(c) A customer wanted to know the possible combinations for a car with leather seats and either silver or grey paint colour.

What search condition would need to be input? [2]

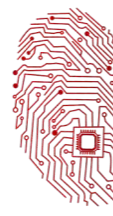
(d) A customer decided to buy a green car. He wanted to know which seat colours and seat materials were not a possible combination with green paint.

What search condition would he need to enter? [1]

(e) Give one advantage of using the codes Y and N in the database rather than using Yes and No.

[1]





Topic: 2.3 Databases

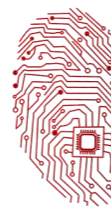
Oct/Nov 2013 P13:

9 A database was set up to keep track of goods in a shop. A section of the database is shown below.

Item code	Number in stock	Re-order level	Price of item (\$)	Value of stock (\$)	Items ordered
1113	155	200	1.50	232.50	Yes
1124	84	50	2.50	210.00	No
1200	30	60	5.00	150.00	Yes
1422	600	500	1.00	600.00	No
1515	90	100	2.00	180.00	No
1668	58	50	4.00	232.00	No
1801	60	100	8.00	480.00	No
1844	195	200	1.50	292.50	Yes

- (a) How many records are shown in this section of database? [1]
- (b) (i) Using Item code only, what would be output if the following search was carried out:
(Number in stock < Re-order level) AND (Items ordered = "No") [2]
- (ii) What useful information does this search produce? [1]
- (c) Write a search condition to locate items costing more than \$2.00 or have a stock value exceeding \$300.00. [2]





Topic: 2.3 Databases

May/June 2014 P11:

3 A hospital holds records of its patients in a database. Four of the fields are:

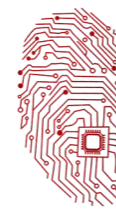
- date of visit (dd/mm/yyyy)
- patient's height (m)
- 8-digit patient ID
- contact telephone number

The presence check is one possible type of validation check on the data. For each field, give another validation check that can be performed. Give an example of data which would fail your named validation check.

A different validation check needs to be given for each field.

field name	name of validation check	example of data which would fail the validation check
date of visit		
patient's height		
patient ID		
contact telephone number		





Topic: 2.3 Databases

14 A database was set up showing statistics for some states in the USA. Part of the database is shown below.

Ref	Name of state	Population (millions)	Number of houses (millions)	Area (sq miles)	Density	Travel time to work (min)
OR	Oregon	3.8	1.6	96000	39.6	22.3
CO	Colorado	4.9	2.1	104000	47.1	24.3
NJ	New Jersey	8.7	3.5	7400	1175.7	30.0
TX	Texas	24.3	9.4	262000	92.7	25.4
CA	California	36.8	13.3	156000	235.9	27.7
FL	Florida	18.3	8.7	53900	339.5	26.2
AK	Alaska	0.7	0.3	572000	1.2	19.6
NV	Nevada	2.6	1.1	110000	23.6	23.3
NY	New York	19.5	7.9	47000	414.9	31.7

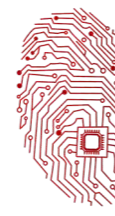
- (a) (i) How many records are in this section of the database? [1]
 (ii) How many fields are in each record? [1]
- (b) The following search condition was entered:
 (Population (millions) < 4.0) OR (Number of houses (millions) < 4.0)
 Using Ref only, write down which records will be found. [2]
- (c) Write down the search condition to find out which states have an area over 100 000 square miles and where it takes less than 25 minutes to get to work. [2]
- (d) (i) What should be the key field in this database? [1]
 (ii) Give a reason for your choice.

May/June 2015 P21 (2210)

7 A database, PROPERTY, was set up to show the prices of properties for sale and the features of each property. Part of the database is shown below.

Property Type	Brochure No	Number of Bedrooms	Number of Bathrooms	Garden	Garage	Price in \$
Bungalow	B17	7	4	Yes	Yes	750,000
Apartment	A09	2	1	No	No	100,000
House	H10	4	2	Yes	No	450,000
House	H13	3	2	Yes	No	399,000
Apartment	A01	2	2	No	Yes	95,000
Apartment	A16	1	1	No	No	150,000
House	H23	3	1	No	Yes	250,000
House	H46	2	1	Yes	Yes	175,000





Topic: 2.3 Databases

(a) Give the number of fields that are in each record.[1]

(b) State which field you would choose for the primary key.
Give a reason for choosing this field.[2]

(c) State the data type you would choose for each of the following fields.

Garage
Number of Bedrooms
Price in \$[3]

(d) The query-by-example grid below selects all houses with more than 1 bathroom and more than 2 bedrooms.

Field:	Property Type	Number of Bedrooms	Number of Bathrooms	Price in \$	Brochure No
Table:	PROPERTY	PROPERTY	PROPERTY	PROPERTY	PROPERTY
Sort:				Ascending	
Show:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:	= 'House'	>2	>1		
or:					

Show what would be output.

.....
[2]

(e) Complete the query-by-example grid below to select and show the brochure number, property type and price of all properties with a garage below \$200,000.

Field:				
Table:				
Sort:				
Show:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:				
or:				

[4]

Topic: 2.3 Databases

May/June 2015 P22 (2210)

6 A database, MARKS, was set up to record the test results for a class of students. Part of the database is shown below.

Student Name	Class ID	Maths	English	Science	History	Geography
Paul Smith	0017	70	55	65	62	59
Ravi Gupta	0009	29	34	38	41	44
Chin Hwee	0010	43	47	50	45	52
John Jones	0013	37	67	21	28	35
Diana Abur	0001	92	88	95	89	78
Rosanna King	0016	21	13	11	27	15

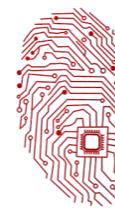
- (a) Give the number of fields that are in each record. [1]
 (b) State which field you would choose for the primary key.

..... [2]
 Give a reason for choosing this field.

(c) The query-by-example grid below selects all students with more than 60 marks in History or more than 60 marks in Geography.

Field:	Student Name	History	Geography
Table:	MARKS	MARKS	MARKS
Sort:	Ascending		
Show:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:		>60	
or:			>60

Show what would be output. [2]



Topic: 2.3 Databases

(d) Complete the query-by-example grid below to select and show the student names only of all students with less than 40 marks in both Maths and English.

Field:			
Table:			
Sort:			
Show:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:			
or:			

[3]

