Name: _____

IAL IT Topic 5 Examiner's Report

Date:

Time:

Total marks available:

Total marks achieved: _____

Examiner's Report

Q1.

This was a short practical question. The candidates were asked to write a Structured Query Language (SQL) query.

The database needed was that given in the previous question. The table headings shown were those to be used in writing the query, but understandable variations were accepted.

SQL queries have a set structure and syntax, but this varies according to the version of SQL and the database being used. Marks were awarded as long as the query was understandable.

A customer brings in a photograph of a plant she wants to buy.

She says that the plant has white flowers and is at least two metres tall.

The garden centre identifies the plant as a type of mimosa.

Write an SQL query that:

- finds all the mimosa plants that meet the criteria
- displays the official name of each plant, and the names and telephone numbers of the suppliers, if any, who stock that plant
- orders the list alphabetically by supplier name. Asc

(6)

```
SELECT officialName, supplierName,
telephoneNumber FROM tbl_supplier,
tbl_plant WHERE height>=2 AND
flowerColour = 'White' AND officialName
= '%mimosa%' ORDER ASC
by BY supplierName;
```

Results Plus: Examiner Comments

The answer notes everything except mark point 6, the join between the two tables.

The answer is not well-structured, because each word written in capitals should have started a new line. It is, however, understandable.

Total: 6 Marks

```
SELECT officialName, SupplierName, telephoneNumber
FROM tbl-Supplier, tbl-plant
   WHERE commonOfficialName = "mimosa"
      AND height >= 2
      AND flowerColour = "white"
      AND tbl-Supplier.SupplierID = tbl-plant.SupplierID
ORDER BY name;
```

Results Plus: Examiner Comments

This response accesses mark points 1 and 2, having only the correct fields from the correct tables.

It does not receive mark point 3, because the candidate has crossed out the correct answer and replaced it with something else. If it had not been replaced, the crossed-out work would still have been valid.

The response does not have any form of 'wildcard' for mark point 4, but does have an AND condition for mark point 5.

Mark point 6 is for the join shown on the next to bottom line.

Mark point 7 is not given as the ORDER needs to be by supplierName. Name by itself is not accepted as it could apply to commonName or officialName as well as supplierName.

Total: 4 Marks

Q2. No Examiner's Report available for this question

Q3. No Examiner's Report available for this question

Q4.

(i) involved writing an SQL query and was not attempted by about half of the candidates. Those who did attempt the task usually picked up several marks.

(ii) should have produced a straightforward answer about the benefits of access to a specialised

database in the context of the question. Large numbers of candidates ignored all context and answered in terms of benefits of using a database to store/search for information.

Q5. No Examiner's Report available for this question

Q6. No Examiner's Report available for this question

Q7.

This is a short practical question, about an entity relationship diagram.

This is worth six marks.

The mark scheme contains six items.

Candidates do not need to produce a fully complete diagram to get full marks. The first three items in the mark scheme only require three of the four possible lines/relationships/primary keys.

This approach was taken as was felt that the candidates have a lot to do in a limited time and three would be sufficient for them to show that they understood relationships and keys.

Q8.

(i) Sub-questions i – iv were based on a database used by a garden centre. Two tables, with sample data were provided. Candidates were asked to give keys and data types being used in the database.

(i) asked for a primary key. The only possible answers were Supplier ID or Product ID. Minor spelling errors or misuse of capitals were ignored.

(ii) Sub-questions i – iv were based on a database used by a garden centre. Two tables, with sample data were provided. Candidates were asked to give keys and data types being used in the database.

(ii) asks for a foreign key. The only possible answer was Supplier ID. Minor spelling errors or misuse of capitals were ignored.

(iii) Sub-questions i – iv were based on a database used by a garden centre. Two tables, with sample data were provided. Candidates were asked to give keys and data types being used in the database.

(iii) asked for the data type being used for 'height'. The only possible answers were Float,

Double, Decimal, or Real. Minor spelling errors were ignored.

(iv) Sub-questions i – iv were based on a database used by a garden centre. Two tables, with sample data were provided. Candidates were asked to give keys and data types being used in the database.

(iv) asked for the data type being used for 'telephoneNumber'. The only possible answers were Text, String or Varchar. Minor spelling errors were ignored.

Q9.

This is an extended writing question in the form of a short essay concerning structured and unstructured data in the context of a garden centre. The mark scheme is levels-based.

Many of the less-able candidates did not know what the terms 'unstructured' and 'structured' data meant. Instead, they wrote about them as if they were data and information. Marks could still be gained if the examples they used fitted the terms, but they were unlikely to get more than a Level 1 mark.

A garden centre stores information about its plants and customers.

The garden centre collects and stores both structured and unstructured data.

Explain the difference between structured and unstructured data.

Where possible, support your explanation using examples of structured and unstructured data that the garden centre might use.

(6)

Unstructured data is such data that has not been given a context. Whereas structured data is data that has been given context and now is information that can be used for example for decision making.

Garden centre may have data of for example; red, green, green, yellow, red, violet..., this is unstructured data as it yet has not been given a context. However, once the context of flowers is given, this becomes structured data which is information of how many flowers there are of each colour, this has now become data that can be used and help the garden centre to keep up to date with their stock. For example if they were to notice that ~~yellow flowers~~ there are no red flowers left, they can ~~order~~ order new red flowers from suppliers using that information, rather than relying on manually noticing that they have ran out of red flowers.

Results Plus: Examiner Comments

The candidate writes about data and information, instead of unstructured/structured data.

Some marks are awarded for appropriate examples of unstructured and structured data.

Total: 2 Marks

A garden centre stores information about its plants and customers.

The garden centre collects and stores both structured and unstructured data.

Explain the difference between structured and unstructured data.

Where possible, support your explanation using examples of structured and unstructured data that the garden centre might use.

(6)

structured data is data represented in a uniform format, it can also be referred to as data that limited to be within a set of rules. Unstructured data is data whose format varies, it is not restricted ~~to~~ by many limits and is idependent of them. Secondly, structured data can be referred to as data that is quantitative which means it is or can be expressed in numbers. Unstructured data is quelitative data, it is in most cases text and can also be thought of as being opinion based. An example of structured data that the shop can use is the product ID of the flower, the amount ~~ordered~~ ordered and the total cost. Each of these has their own format. An example of unstructured data is customer reviews, this is feedback and is influenced by the customers opinion and experience and so is not likely to be restricted to a certain format. Therefore, generally, structured data holds important information whereas unstructured data does not.

Results Plus: Examiner Comments

The answer is difficult to read but worth doing so because it is clear and has good discussion.

It covers structured and unstructured data and includes examples for both.

It is just enough for the top of Level 3.

Total: 6 Marks

A garden centre stores information about its plants and customers.

The garden centre collects and stores both structured and unstructured data.

Explain the difference between structured and unstructured data.

Where possible, support your explanation using examples of structured and unstructured data that the garden centre might use.

(6)

Structed data is formatted, organized quantitative data, while onstructed data is qualitative unformatted and unorganised. The centre may store its structed data in a relational database such as plant stock remaining for ~~different~~ different types of the plants. ~~They~~ Their product ID's can be stored in a orderly manner. This is structered data. Unstructed data in this case can be customer comments and reviews. They have no format or order, just qualitative. ~~data~~ data stored in the system.

Results Plus: Examiner Comments

The answer covers structured and unstructured data and gives appropriate examples of each.

It is a little too brief and lacking in detail to access Level 3. This is a good Level 2 answer.

Total:4 Marks

Q10. No Examiner's Report available for this question

Q11.

This is a short essay question about the suitability of a relational database for handling structured data.

This is worth six marks.

The indicative content in the mark scheme includes a range of possible approaches. Good answers do not need to include all of them.

The level three descriptor requires 'accurate and relevant knowledge, and a balanced and fully developed discussion'. Balance can be shown by writing about two or more areas of the indicative content.

Relevancy is likely to be automatic, as long as the candidate is writing about a relational database. The descriptors for short essay, discuss questions are always the same and, in this case, the 'balanced' and 'accurate' parts would be weighted more heavily than the 'relevant' part.

Weaker answers are likely be about how the database described might be used, rather than addressing the more general question about handling structured data.

Q12.

This is a short practical question, about an entity relationship diagram.

This is worth six marks.

The mark scheme contains six items.

The last marking point requires a complete diagram with no extra attributes or relationships or incorrect keys. Incorrect relationship types are allowed

The first two items in the mark scheme only require one correct relationship and type.

Q13. No Examiner's Report available for this question