**Year 13 BTEC L3 Extended Certificate in IT**

**Unit 2 Creating Systems to Manage Information**

You will complete a part A paper using Microsoft Access in controlled conditions, the exam lasts for 3 hours.

You will need to submit the following **five** documents on completion of the supervised

assessment period:

* Activity 1 – a screenshot of your normalised relational database
* Activity 2 – a word document showing screenshots of your tables and validation
* Activity 3 – a word document showing screenshots of your queries and reports
* Activity 4 – a word document that shows how your validation rules work
* Activity 5 – a typed evaluation of your database and its features

You will need to refer to the additional task information in the Part A paper including the exam scenario, data base requirements and the flat file database contents.

**Activity 1: Database relationships screenprint (45 minutes)**

Study the data extract provided in **Figure 1.**

Create an efficient database structure that:

* minimises data duplication
* accepts the data provided
* uses recognised naming conventions
* ensures data integrity.

Ensure you use all and only the fields shown in **Figure 1.**

Screen print your database relationships.

Save your database relationships screenprint as a PDF in your folder for submission as **activity1\_[Registration number #]\_[surname]\_[first letter of first name]**

You are advised to spend 45 minutes on this activity.

**(Total for Activity 1 = 8 marks)**

**Activity 2: Table structures and validation (45 minutes)**

Create an efficient table structures based on **Activity 1** and the data shown in **Figure 1.**

The table structures must use suitable validation to meet a set of requirements.

Input the data given in **Figure 1** into your relational database.

Evidence your table structures and validation as screenprints using the given **activity2.rtf** template.

Display your screenprints to show:

* the design view of each table showing the structure, including the fields and data types

validation including a suitable example for each of these:

* presence check
* length check
* value lookup or range check
* table lookup
* format check.

Save your evidence of the table structures as a PDF in your folder for submission as **activity2\_[Registration number #]\_[surname]\_[first letter of first name]**

You are advised to spend 45 minutes on this activity.

**(Total for Activity 2 = 8 marks)**

**Activity 3: Queries and Report (40 minutes)**

**Queries**

(a) Create a simple search query to show some criteria (fields and their contents) from the tables.

(b) Create a complex query that includes calculations and user input.

Evidence your queries as screenprints using the given activity3.rtf template.

Your screenprints must show:

* the DESIGN view of the two queries specified that you have created, including fields and criteria
* the DATASHEET view of the two queries specified that you have created

 **Report**

(c) Create a report that displays some information from the tables in an easy to understand format.
The report must fit on one page.

Evidence your report as screenprints using the given activity3.rtf template. Your screenprints must show:

* the DESIGN view of the report you have created, including grouping and calculations
* the DESIGN view of any queries you have created and used with the report, including fields and criteria
* the DATASHEET view of any queries you have created and used with the report.

Save your query and report evidence as a PDF in your folder for submission as activity3\_[Registration number #]\_[surname]\_[first letter of first name]

(d) Save your database report (not a screenshot) as a PDF in your folder for submission as activity3d\_[Registration number #]\_[surname]\_[first letter of first name]

You are advised to spend 40 mins on this activity.

**(Total for Activity 3 = 12 marks)**

**Activity 4: Structure Testing (20 minutes)**

Test the structure of the validation of your relational database using suitable test data (normal, erroneous and extreme as appropriate).

You must provide evidence of table level testing that proves all of your validation rules work correctly.

Complete the test log to show how you have tested the structure of your database using the given activity4.rtf template.

Save your test log as a PDF in your folder for submission as activity4\_[Registration number #]\_[surname]\_[first letter of first name]

You are advised to spend 20 minutes on this activity.

**(Total for Activity 4 = 6 marks)**

**Activity 5: Structure Evaluation (20 minutes)**

Evaluate your database structure.

You should consider:

How well your database structure has minimised data duplication

How well your database structure meets the client requirements.

Save your evaluation as a PDF in your folder for submission as activity5\_[Registration number #]\_[surname]\_[first letter of first name]

You are advised to spend 20 minutes on this activity.

**(Total for Activity 5 = 6 marks)**

**Exam Contents Revision Tick List**

|  |
| --- |
| **Activity** |
| Frayer Models (use of language) |
| Set Task Brief (read and annotate) |
| Extract of Data (read and annotate) |
| **Activity 1: Database relationships**  |
| * Create tables
 |
| * Create relationships
 |
| * Screenprint and save in Activity 1 document
 |
| * Save Activity 1 document correctly (filename)
 |
| **Activity 2: Table structures and validation** |
| * Change data types as necessary
 |
| * Screenprint all tables in Activity 2 document
 |
| * Create validation rules as necessary
 |
| * Screenprint validation in Activity 2 document
 |
| * Save Activity 2 document correctly (filename)
 |
| **Activity 3: Queries and Report** |
| * Create simple query (task a)
 |
| * Screenprint simple query in Activity 3 document
 |
| * Create complex query (task b)
 |
| * Screenprint complex query in Activity 3 document
 |
| * Create query for report (task c)
 |
| * Edit report as necessary
 |
| * Print report as a PDF
 |
| * Screenprint report and queries in Activity 3 document
 |
| * Saved Activity 5 document correctly (filename)
 |
| **Activity 4: Structure Testing** |
| * Complete testing table with test numbers
 |
| * Complete testing table with type of test (N,R.X)
 |
| * Complete testing table with test data
 |
| * Complete testing table with expected results
 |
| * Included screenprints for each test
 |
| * Completed the final column showing how you have fixed any failed tests
 |
| * Saved Activity 4 document correctly (filename)
 |
| **Activity 5: Evaluation** |
| * Completed evaluation word document
 |
| * Saved Activity 5 document correctly (filename)
 |