Module 5 - Database

The following is the Syllabus for Module 5, *Database*[12], which is the basis for the theory and practice-based test in this module domain.

Module Goals

Module 5   **Database,** requires the candidate to understand some of the main concepts of databases and demonstrate the ability to use a database on a computer. The candidate shall be able to create and modify tables, queries, forms and reports, and prepare outputs ready for distribution. The candidate shall be able to relate tables and to retrieve and manipulate information from a database by using query and sort tools available in the package.

CATEGORY	SKILLS SET	REF.	Task Item
5.1 Using the Application	*5.1.1 Database Concepts*	5.1.1.1	Understand what a database is.
		5.1.1.2	Understand how a database is organised in terms of tables, records, fields, and with field data types, field properties.
		5.1.1.3	Understand what a primary key is.
		5.1.1.4	Understand what an index is.
		5.1.1.5	Understand the purpose of relating tables in a database.
		5.1.1.6	Understand the importance of setting rules to ensure relationships between tables are valid.
	5.1.2 First Steps with Databases	5.1.2.1	Open (and close) a database application.
		5.1.2.2	Open, log onto an existing database.
		5.1.2.3	Create a new database.
		5.1.2.4	Save a database to a location on a drive.
		5.1.2.5	Use available Help functions.
		5.1.2.6	Close a database.

[12] The current ECDL Module 5 Syllabus is based on database software that uses a relational data model implementation.

CATEGORY	SKILLS SET	REF.	Task Item
	5.1.3 Adjust Settings	5.1.3.1	Change between view modes in a table, form, report.
		5.1.3.2	Display, hide built-in toolbars.
5.2 Tables	*5.2.1 Main Operations*	5.2.1.1	Create and save a table and specify fields with their data types.
		5.2.1.2	Add, delete records in a table.
		5.2.1.3	Add a field to an existing table.
		5.2.1.4	Add, modify data in a record.
		5.2.1.5	Delete data in a record.
		5.2.1.6	Use the undo command.
		5.2.1.7	Navigate within a table to next record, previous record, first record, last record, specific record.
		5.2.1.8	Delete a table
		5.2.1.9	Save and close a table.
	5.2.2 Define Keys	5.2.2.1	Define a primary key.
		5.2.2.2	Index a field with, without duplicates allowed.
	5.2.3 Table Design/Layout	5.2.3.1	Change field format attributes such as: field size, number format, date format.
		5.2.3.2	Understand consequences of changing field size attributes in a table.
		5.2.3.3	Create a simple validation rule for number, text, date/time, currency.
		5.2.3.4	Change width of columns in a table.
		5.2.3.5	Move a column within a table.
	5.2.4 Table Relationships	5.2.4.1	Create a one-to-one, one-to-many relationship between tables.
		5.2.4.2	Delete relationships between tables.

CATEGORY	SKILL SET	REF.	Task Item
		5.2.4.3	Apply rule(s) to relationships such that fields that join tables are not deleted as long as links to another table exist.
5.3 Forms	*5.3.1 Working with Forms*	5.3.1.1	Open a form.
		5.3.1.2	Create and save a form.
		5.3.1.3	Use a form to enter, modify, delete records.
		5.3.1.4	Go to next record, previous record, first record, last record, specific record using form display.
		5.3.1.5	Add, modify text in Headers, Footers in a form.
		5.3.1.6	Delete a form.
		5.3.1.7	Save and close a form.
5.4 Retrieving Information	*5.4.1 Main Operations*	5.4.1.1	Use the search command for a specific word, number, date in a field.
		5.4.1.2	Apply a filter to a table, form.
		5.4.1.3	Remove a filter from a table, form.
	5.4.2 Queries	5.4.2.1	Create and save a single table query, two-table query using specific search criteria.
		5.4.2.2	Add criteria to a query using any of the following operators: < (Less than), <= (Less than or equals), > (Greater than), >= (Greater than or equals), = (Equals), <> (Not equal to), And, Or.
		5.4.2.3	Edit a query by adding, removing criteria.
		5.4.2.4	Edit a query: add, remove, move, hide, unhide fields.
		5.4.2.5	Run a query.
		5.4.2.6	Delete a query.
		5.4.2.7	Save and close a query.
	5.4.3 Sort Records	5.4.3.1	Sort data in a table, form, query output, in ascending, descending numeric, alphabetic order.

Category	Skill Set	Ref.	Task Item
5.5 Reports	*5.5.1 Working with Reports*	5.5.1.1	Create and save a report based on a table, query.
		5.5.1.2	Change arrangement of data fields and headings within a report layout.
		5.5.1.3	Group data under a specific heading (field) in a report in ascending, descending order.
		5.5.1.4	Present specific fields in a grouped report by sum, minimum, maximum, average, count, at appropriate break points.
		5.5.1.5	Add, modify text in Headers, Footers in a report.
		5.5.1.6	Delete a report.
		5.5.1.7	Save and close a report.
5.6 Prepare Outputs	*5.6.1 Prepare to Print*	5.6.1.1	Preview a table, form, report.
		5.6.1.2	Change report orientation: portrait, landscape. Change paper size.
	5.6.2 Print Options	5.6.2.1	Print[13] a page, selected record(s), complete table.
		5.6.2.2	Print all records using form layout, specific pages using form layout.
		5.6.2.3	Print the result of a query.
		5.6.2.4	Print specific page(s) in a report, complete report.

[13] Print to file functionality, while not included as a formal Syllabus task item, may be required as part of training and preparation for candidates where some printing constraints exist at a Test Centre.