



**Level 6 Advanced Diploma in Information
Technology (104) 131 Credits**



Unit: Advanced Access	Guided Learning Hours: 220
Exam Paper No.: 5	Number of Credits: 22
Prerequisites: Good knowledge of file management.	Corequisites: A pass or higher in Diploma in Information Technology or equivalence.
<p>Aim: This unit introduce learners to the advanced features of Microsoft Access and advanced report techniques; advanced form techniques; advanced application development techniques, and integrating an Excel worksheet to an Access database. Upon completion of this unit, learners will be able to use the (i) Form Design View (toolbox, field list, format, calculating fields, sub-forms and form and field properties, add graphics, command buttons, tabbed pages). (ii) Report Design View (investigate types of report sections, toolbox, field list, format, sorting and grouping, calculating fields, adjusting report width, using sub-reports and report properties). (iii) Advanced importing and exporting (creating junction tables, cross-tab queries, using macros to automate a task, linking the macro to a button on a form, cancel printing of a blank report, automate data entry and data validation using macros).</p>	
Required Materials: Recommended Learning Resources.	Supplementary Materials: Recommended textbooks and lecture notes.
<p>Special Requirements: This is a hands-on unit, hence practical use of computers is essential. Requires intensive lab work outside of class time.</p>	
<p>Intended Learning Outcomes:</p> <ol style="list-style-type: none"> How to integrate Access with other office applications, Object Linking and Embedding (OLE), importing and exporting files. Understand how to design advanced queries, improve data integrity with queries; modifying table designs using lookup fields, input masks and data validation rules. 	<p>Assessment Criteria:</p> <ol style="list-style-type: none"> 1.1 Explain Access terminology 1.2 Be able to design a sample Access database 1.3 Define Object Linking and Embedding (OLE) 1.4 Describe how to use Microsoft Graph to chart data in tables or queries 1.5 Describe how to import data to Access 1.6 Describe how to export data from Access 1.7 Demonstrate creating a Data Access Page using the Page Wizard 1.8 Illustrate how to use Design view to modify a Data Access Page 2.1 Review table and object naming standards 2.2 Describe how to use the Like, In, Not, and & operators in queries 2.3 Describe how to filter data using an AutoFilter 2.4 Demonstrate using the IIf function to assign a conditional value to a calculated field in a query 2.5 Describe how to create a parameter query 2.6 Describe how to use query wizards to create a crosstab query, a find duplicates query, and a find unmatched query 2.7 Describe how to create a top values query 2.8 Identify object dependencies 2.9 Review a Memo field's properties 2.10 Define how to designate a trusted folder

<p>3. Understand how to use Form Tools to create custom forms and design advanced forms.</p>	<p>3.1 Describe how to change a lookup field to a Text field</p> <p>3.2 Describe how to view and print database documentation</p> <p>3.3 Illustrate how to create datasheet, multiple items, and split forms</p> <p>3.4 Describe how to modify a form and anchor form controls in Layout view</p> <p>3.5 Illustrate how to plan, design, and create a custom form in Design view and in Layout view</p> <p>3.6 Describe how to select, move, align, resize, delete, and rename controls in a form</p> <p>3.7 Describe how to add a combo box to a form</p> <p>3.8 Describe how to add form headers and footers to a form</p> <p>3.9 Describe how to add a combo box to a form to find records</p> <p>3.10 Describe how to add a subform to a form</p> <p>3.11 Describe how to add calculated controls to a form and a subform</p> <p>3.12 Identify how to change the tab order in a form</p> <p>3.13 Identify how to improve the appearance of a form</p>
<p>4. The process of customising reports by hiding duplicate values in a report.</p>	<p>4.1 Define how to view, filter, and copy report information in Report view</p> <p>4.2 Describe how to modify a report in Layout view</p> <p>4.3 Describe how to modify a report in Design view</p> <p>4.4 Describe how to design and create a custom report</p> <p>4.5 Illustrate sorting and grouping data in a report</p> <p>4.6 Define how to add, move, resize, and align controls in a report</p> <p>4.7 Illustrate how add lines to a report</p> <p>4.8 Describe how to add the date, page numbers, and title to a report</p> <p>4.9 Describe how to create and modify mailing labels</p>
<p>5. Understand implementation of advanced topics including multipaged forms, PivotTables and PivotCharts, XML and Microsoft SQL Server.</p>	<p>5.1 Describe how to export an Access table to a HTML document and view the document</p> <p>5.2 Describe how to import a CSV file as an Access table</p> <p>5.3 Describe how to use the Table Analyser</p> <p>5.4 Describe how to import and export XML files</p> <p>5.5 Demonstrate how to save and run import and export specifications</p> <p>5.6 Demonstrate how to create a multi-page form using a tab control</p> <p>5.7 Illustrate how to embed a chart in a form</p> <p>5.8 Illustrate how to create and modify</p>

	<p>PivotTables and PivotCharts</p> <p>5.9 Illustrate how to link data from an Excel worksheet</p>
<p>6. Understand relationships, the purpose of junction tables, multi-table forms, reports, inner and outer joins.</p>	<p>6.1 Describe how to create an action query to create a table</p> <p>6.2 Demonstrate creating action queries to append, delete, and update data</p> <p>6.3 Define many-to-many and one-to-one relationships between tables</p> <p>6.4 Discuss about joining tables</p> <p>6.5 Demonstrate joining tables using a self-join</p> <p>6.6 Be able to view and create indexes for tables</p>
<p>7. How to automate database tasks using macros and user interfaces using SQL statements to fill a list box with object names.</p>	<p>7.1 Describe how to design a switchboard and dialog box for a graphical user interface</p> <p>7.2 Describe how to run and add actions to macros</p> <p>7.3 Define a single step macro</p> <p>7.4 Describe how to create a macro</p> <p>7.5 Describe how to add a macro to a macro group</p> <p>7.6 Describe how to add a command button to a form</p> <p>7.7 Describe how to attach a macro to a command button</p> <p>7.8 Describe how to create a dialog box form</p> <p>7.9 Describe how to add a list box to a form</p> <p>7.10 Describe how to create a macro group</p> <p>7.11 Describe how to use the Switchboard Manager to create a switchboard</p> <p>7.12 Describe how to modify a switchboard</p>
<p>8. How to program in Access; the process of creating Visual Basic Applications (VBA).</p>	<p>8.1 Describe Function procedures (functions), Sub procedures (subroutines), and modules</p> <p>8.2 Review and modify an existing subroutine in an event procedure</p> <p>8.3 Create a function in a standard module</p> <p>8.4 Create event procedures</p> <p>8.5 Compile and test functions, subroutines, and event procedures</p> <p>8.6 Hide text and change display colors</p> <p>8.7 Create event procedures for a dialog box</p>
<p>9. Understand how data administration maintains database integrity and allowing authorised users to access the database.</p>	<p>9.1 Use data validation criteria to ensure data accuracy</p> <p>9.2 Create and modify custom input masks</p> <p>9.3 Add user permissions to a database</p> <p>9.4 Set database passwords</p> <p>9.5 Use database replication to synchronise multiple copies of a database</p> <p>9.6 Apply database encryption to secure data</p> <p>9.7 Use the Database Splitter to protect databases from modification and to create a front and back end</p>

Methods of Evaluation: A 3-hour essay written paper with 5 questions, each carrying 20 marks. Candidates are required to answer all questions. Candidates also undertake project/coursework in Advanced Access with a weighting of 100%.

Recommended Learning Resources: Advanced Access

Text Books	<ul style="list-style-type: none">Database Projects in Access for Advanced Level by Julian Mott and Ian Rendell. ISBN-10: 034081201XIllustrated Course Guide: Microsoft Office Access Advanced by Lisa Friedrichsen. ISBN-10: 1423905334
Study Manuals 	BCE produced study packs
CD ROM 	Power-point slides
Software 	Microsoft Access

Business & Computing Examinations (BCE)