

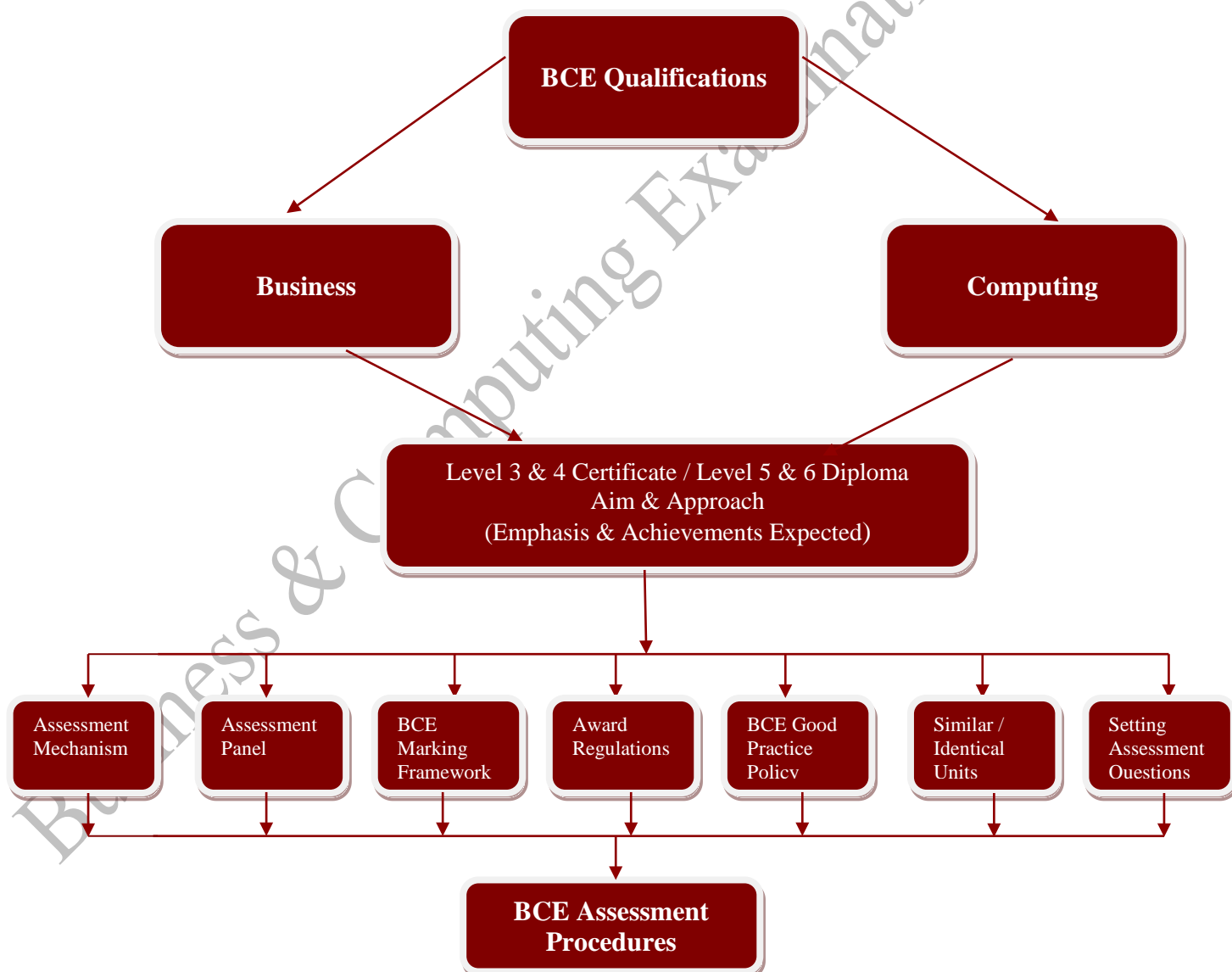


# Business & Computing Examinations (BCE) LONDON (UK)

## Assessment Policy

<b>Policy No.:</b>	P001a
<b>Date of issue:</b>	October 2011, <i>revised September 2020</i>
<b>Status:</b>	Approved
<b>Responsibility for policy:</b>	Programme Development & Services
<b>Responsibility for implementation:</b>	Programme Development Manager

### Assessment Policy Framework



## **BCE Assessment Policy**

### **1.1 Assessment Mechanism**

BCE's assessment policy is a statement within which we operate our assessment and examinations. The assessment of standards of performance lies at the heart of the experience of learners and the expectations of the stakeholders of BCE. It is integral to the Approved Centres' Teaching and Learning Strategy and the responsibilities of BCE to its learners, regulators and prospective employers. The internal and external trust and confidence in the integrity of the assessment of standards and procedures of BCE are central to the claims which we make about our awards and qualifications.

The purpose is to enable BCE to operate assessment for qualifications, within a consistent set of principles and guidance notes.

The UK Regulatory Agency Code of Practice identifies: **quality, consistency, accuracy and fairness** in the assessment and awarding of qualifications. BCE's policy on marking and moderation is intended to provide consistency of approach.

We recognise that there are differing practices that take place with regard to the marking of examinations that have been developed in accordance with local requirements to reflect the nature of the examination. The BCE Assessment policy aims to provide consistency through the identification of a common set of definitions to which all staff within the organisation are expected to work.

Particular attention should be paid to mechanisms for dealing with learners at the border, pass/fail line.

### **Marking and Assessment (Marking Definitions and Policy)**

This draft marking definitions have been included here to provide contextual reference.

*Marking* is the process used to assess a learner's achievement of learning outcomes and the examination standards in a given assessment component.

*Anonymous marking* is a process where an examination component is marked without the learner's name/identity being made known to the marker (this is also known as blind marking).

*Double marking* is a process where an examination component is marked by more than one marker on separate occasions where the comments and mark of the other marker(s) are unknown to each marker. Double marking can be based on a structured sample.

*Double blind marking* is double marking where the learner's name is not made known to the markers

*Second marking* is a process where an assessment component is marked by more than one marker separately, but where the first marker's comments and marks are known to the second marker. Second marking can be based on a structured sample, but differs from moderation as it is a marking activity.

*Panel marking* is marking where a number of assessors consider a learner's performance in the assessment. This approach is most commonly found in arts performance.

*Automated marking* is a process of computer assisted examination whereby a learner's exam work is marked electronically, according to a standard algorithm for that assessment. This process is most commonly used for multiple choice.

*Verification/Moderation* is a process where a subsequent and separate marker reviews a sample of marked assessment. Review considers the quality and accuracy of marking and may lead to changes in marks and feedback. In moderation, however, the overriding principle is to ensure the accuracy and consistency of the marker. This allows for overall rescaling where necessary. Structured samples are often used as the basis for moderation. Moderation differs from second marking because it is not a marking activity but a review process.

In the event of a disagreement between markers, a process of discussion should be used in the first instance with a view to agreeing a mark. Where this is not successful, the matter is referred to the head

of the assessment panel for consideration and resolution. An External Examiner may be consulted. Ultimately, the decision of the assessment panel is final in agreeing the marks.

#### *Why moderate?*

The purpose of moderation is to ensure fairness, accuracy and consistency in the marking process and the provision of results. We try our best that the process accurately reflect learner performance; hence this is replied upon by all stakeholders (further education, government, accreditation bodies and institutions).

The Chief Examination Officer also acts as the internal moderator by taking a sample to review marking standards. The purpose is twofold, checking; (a) the consistency of marking and (b) that marking is appropriate and conforms to BCE mark descriptors.

If inconsistency or in appropriate marking is encountered, a second marker is appointed from the list of examiners. Inconsistency leads to all papers being marked and a higher mark from the comparison is chosen as the final mark. Again a report is produced highlighting observations.

#### *The Role of External Verifier*

The role of the external verifier is to look at the marking process, not individual marks. Their role is to audit/validate the marking and moderation process.

We recommend **statistical analysis** for the use by the Approved Centres, so that they can compare the final candidate's examination results to their internal assessment final progress reports.

#### 1.2 **Assessment Panel**

The Assessment Panel select qualifications and assessment products and have professional responsibilities to make sure the assessments are appropriate for their intended targets. The Assessment Panel have an important role in making sure assessments are administered in a fair and accurate manner. The marking of assessments should be conducted properly and efficient so that the results are reported accurately and in a timely manner.

The Assessment panel shall comprise the following:

- Chief Examinations Officer
- Exam Setters
- Exam Revisers / Scrutinisers
- Examiners (number can vary depending on exam candidates)
- 2 External Verifiers (Computing and Business qualifications respectively)
- Any other person approved by management

#### **Purpose of Assessment Panel**

The Examiners are responsible for overseeing the marking of examinations. The overall purpose of Assessment Panel;

#### **Examiners:**

- i. To mark examinations and projects/coursework
- ii. To consider recommendations from centres extenuating circumstances and academic misconduct during examinations
- iii. To make recommendations to Programme Design & Review Panel on the award of Level 3 and 4 Certificates, Level 5 Diplomas and Level 6 Diplomas as appropriate.
- iv. To consider External Verifier comments
- v. To report to the Chief Examinations Officer any recommendations concerning the content, operation and assessment of the examinations

#### **Assessment Panel:**

- i. To prepare examination and re-sit examination papers together with model answers that should be provided to those who mark the exams for consideration and approval by the Management
- ii. To agree the marks obtained by each candidate
- iii. Attend assessment meetings (standardisation)
- iv. Take an overview of the qualifications
- v. Quality assurance role in relation to assessment

- vi. Quality enhancement role through comments and advice on qualification structure, content and delivery
- vii. To review the assessed work
- viii. To approve recommendations
- ix. To report on the standards of the exam, the candidate performance, and the soundness and fairness of processes for the assessment and determination of examination results

### 1.3 **BCE Marking Framework**

#### *What is the Marking Framework?*

The marking framework is a set of guidelines for valuing, measuring, describing and comparing learning achievements within BCE's qualifications. The framework is concerned with the demonstration of learning achieved, how much learning and at what level, and is designed to include learning from a wide range of centres, both national and international.

#### *Purpose of the Marking Framework?*

The purpose of the marking framework is to use a "common language" of credit to describe learning achievements.

#### **Assessment Marking Guidelines**

The assessment marking guideline is used to ensure consistency.

##### 1.3.1 **Assessment marking guidelines for written examination**

Each essay question carries 20 marks. Marks are awarded for:

3	core knowledge
5	detailed answers (short answers not acceptable)
3	ability to argue/interpret
4	use of diagrams
3	calculations
<u>2</u>	presentation, fluent English, spelling and grammar, syntax and structure
<u>20</u>	

##### 1.3.2 **Assessment marking guidelines for project/coursework**

The assessment guideline is used to ensure consistency.

20%	answering the question in detail/focusing on the question
20%	accuracy of references, contextualisation of source material and evidence.
50%	content, breadth and depth of research. This is broken down as follows:
	<ul style="list-style-type: none"> <li>▪ abstract, introduction and acknowledgement 5%</li> <li>▪ relevance 10%</li> <li>▪ arguments/facts put across 15%</li> <li>▪ detailed analysis 15%</li> <li>▪ conclusion, bibliography, references 5%</li> </ul>
<u>10%</u>	presentation, fluent English, spelling, grammar, syntax and structure
<u>100%</u>	

### Computer Programming Coursework Assessment Report

<b>1. Title, Abstract, Table of Contents, Introduction</b>						
vague	1	uninformative	2	inaccurate	3	<input type="checkbox"/>
succinct	4	informative	5	accurate	6	
<b>2. Program description</b>						
incomplete	1	inaccurate	2	no critical thought	3	<input type="checkbox"/>
comprehensive	4	authoritative	5	insightful	6	
<b>3. Analysis, investigation and requirements</b>						
no argument	1	no foundation	2	careless, shallow	3	<input type="checkbox"/>
well argued	4	sound in principle	5	meticulous	6	
<b>4. Actual Coding</b>						
ill-defined	1	incomplete	2	poor solution	3	<input type="checkbox"/>
well specified	4	well-executed	5	perfect program	6	
<b>5. Program Testing</b>						
no proper criteria	1	entirely subjective	2	biased assessment	3	<input type="checkbox"/>
appropriate criteria	4	objective tests	5	balanced assessment	6	
<b>6. Conclusion</b>						
vague	1	unsubstantiated	2	narrow view	3	<input type="checkbox"/>
clearly identified	4	justified	5	broad scope	6	
<b>7. Quality of presentation</b>						
draft standard	1	lots of errors	2	difficult to read	3	<input type="checkbox"/>
good quality	4	tidy, no errors	5	well written	6	

Interpreting the allocation of marks from the above 1 to 6 classifications:

<b>1</b>	<b>=</b>	<b>3</b>
<b>2</b>	<b>=</b>	<b>6</b>
<b>3</b>	<b>=</b>	<b>9</b>
<b>4</b>	<b>=</b>	<b>12</b>
<b>5</b>	<b>=</b>	<b>15</b>
<b>6</b>	<b>=</b>	<b>18</b>

Highest mark per each section is 18; then multiply by 7 sections = 126. For each subject; the percentage mark is:  $(total\ for\ all\ 7\ sections \div 126) * 100\%$ .

Overall PROJECT mark is average mark of all units; which is (percentage total marks from ALL units *divide* by the total number of units).

Overall total mark is in percentage (%); add all marks from the 5 questions.

Candidates who copy each other are given 0 marks.

**All Other Qualifications Coursework Assessment Report**

<b>1. Title, Abstract, Table of Contents, Introduction</b>						
vague	1	uninformative	2	inaccurate	3	<input type="checkbox"/>
succinct	4	informative	5	accurate	6	
<b>2. Review, Referencing and other resources</b>						
incomplete	1	inaccurate	2	no critical thought	3	<input type="checkbox"/>
comprehensive	4	authoritative	5	insightful	6	
<b>3. Problem analysis</b>						
no argument	1	no foundation	2	careless, shallow	3	<input type="checkbox"/>
well argued	4	sound in principle	5	meticulous	6	
<b>4. Research and methods</b>						
ill-defined	1	incomplete	2	poor solution	3	<input type="checkbox"/>
well specified	4	well-executed	5	perfect program	6	
<b>5. Results and evaluation</b>						
no proper criteria	1	entirely subjective	2	biased assessment	3	<input type="checkbox"/>
appropriate criteria	4	objective tests	5	balanced assessment	6	
<b>6. Conclusion</b>						
vague	1	unsubstantiated	2	narrow view	3	<input type="checkbox"/>
clearly identified	4	justified	5	broad scope	6	
<b>7. Quality of presentation</b>						
draft standard	1	lots of errors	2	difficult to read	3	<input type="checkbox"/>
good quality	4	tidy, no errors	5	well written	6	

Interpreting the allocation of marks from the above 1 to 6 classifications:

<b>1</b>	<b>=</b>	<b>3</b>
<b>2</b>	<b>=</b>	<b>6</b>
<b>3</b>	<b>=</b>	<b>9</b>
<b>4</b>	<b>=</b>	<b>12</b>
<b>5</b>	<b>=</b>	<b>15</b>
<b>6</b>	<b>=</b>	<b>18</b>

Highest mark per each section is 18; then multiply by 7 sections = 126. For each subject; the percentage mark is:  $(total\ for\ all\ 7\ sections \div 126) * 100\%$ .

Overall PROJECT mark is average mark of all units; which is (percentage total marks from ALL units *divide* by the total number of units).

Overall total mark is in percentage (%); add all marks from the 5 questions

Candidates who copy each other are given 0 marks.

**Advice to Candidates**

A project should be well written. Candidates should remember they are writing a project to another person (examiner), so should:

- keep it simple (one might not be familiar with your subject area)
- make it interesting
- ensure project contains no plagiarism or collusion

- research (do a lot of research before you start writing)
- demonstrate that the candidate has worked independently
- not copy from the internet!

Note the following:

- **Precision.** Be precise, what you write could be misinterpreted.
- **Vigour.** Your text/content should be forceful and vigorous
- **Grammar.** Includes syntax, morphology and semantics
- **Spelling** – check for spelling mistakes
- **Illustrations, figures and diagrams.** Remember, a picture speaks a thousand words.
- **Layout/Structure**
  - (i) **Abstract** – summarises the content of the report
  - (ii) **Introduction** – aim/objective
  - (iii) **Research** – materials, methods and results. (this makes up the different chapters)
  - (iv) **Conclusion/summary**
  - (v) **References**
- **Acknowledgements.** It is important to acknowledge the support and help you got.

*Format and Retention of coursework [where suitable]*

1.	All coursework must be in electronic form; on Flash/CD/DVD.
2.	The language in which the project is written must be English.
3.	Pages shall be numbered consecutively throughout.
4.	Minimum number of words PER UNIT are as follows: <b>Level 3 and 4 Certificates</b> 500 words <b>Level 5 Diploma</b> 1,500 words <b>Level 6 Diploma</b> 3,000 words

However, learners can produce more words if they so wish, the above is the recommended guideline.

### 1.3.3 Grading Criteria

Proficiency levels are cut offs, which label a student’s performance as Distinction, Merit, Pass or Fail. Proficiency levels are set against percentile normative rankings, which show how students are doing compared to one another, as opposed an absolute standard.

BCE Examinations across all Levels are graded using the following scale.

- **Distinction**
- **Merit**
- **Pass**
- **Fail**

This marking scheme uses the following published thresholds. A description of each grade is provided below.

Grade	Percentage Thresholds
Distinction	>= 80
Merit	>= 65
Pass	>=50
Fail	<50

#### **Distinction**

A Distinction does not equal perfection, however it shows:

- evidence of wide, critical reading, beyond recommended works in many cases, and demonstrating an excellent awareness of the topic;
- imaginative, often original argument and analysis backed by command of details, and also demonstrating a sophisticated awareness of the broader context of a particular problem.
- signs of individual reflection and thought;
- fluency and cogency of expression, maturity of style and ‘sparkle’;

- breadth of coverage, with a good awareness of links and interconnections;
- clear focus on the question;
- relevant and accurate answers;
- competent arguments, demonstrating conventional understanding of issues and problems and backed up by examples and use of evidence;

### **Merit**

An answer based upon extensive and comprehensive research/reading, with a good use of material in support of argument, and a sound awareness of issues reflected in the reading:

- well structured around an argument, with emphasis upon analysis, and expressing own opinions intelligently, fluently and clearly;
- clearly focused upon the question, with presentation of appropriate evidence;
- a confident, lucid (and often concise and focused) style, with sound grasp of good conventions;

### **Pass**

- reasonable body of knowledge, although it may not be used to its full effect;
- occasionally an answer that misses the point of the question, but demonstrates a solid body of research and argument;
- relevant knowledge, but may be superficial, incomplete or inaccurate;
- argument is either unstructured or with limited focus upon question asked;

### **Fail**

- poorly structured and written, with poor attention to vocabulary and grammar;
- comprehensive failure to answer question or to understand it, so that few, if any sections of the answer relevant to question posed;
- very poor style, on occasion verging on incomprehensible - often includes problems with spelling and/or grammar;
- no attempt to answer the question;

#### **1.3.4 Can the Examiner Raise marks**

This is left to the discretion of the examiner. However, 69% is not the same as 70%, hence, we recommend examiners to exercise caution.

#### **1.3.5 Exam Marking Process**

Once all examinations have been received from the different exam centres, the following procedures are followed:

- A head count of each exam set
- Check if names of candidates on list correspond to the actual names on exam papers
- Identify candidates who did not sit the exams
- Recruited examiners are briefed of their duties and sign confidentiality agreements
- Marking of examinations take about 3-6 weeks. Mostly, marking is done in 30 days.

### **Training and Marking**

- The BCE Chief Examinations Officer train qualification unit experts to form the qualifications marking panel.
- Examination scripts are batched and then marked. Performances or products and investigations are marked in Centre/qualification group batches and examiners are required to exonerate themselves if they identify a Centre or Candidate they know or associated with. Where there are many exam scripts, each examiner marks 1 question (to minimise errors).
- Examination scripts and performances or products, are marked with due account given to the performance standards.

### **Comparisons between Markers**

- In single-marked examinations or sections of examinations, coursework or similar activities and performances or products, the degree of comparability between the marker and the marking supervisor is identified. If the judgment of the marker of an examination paper is in



question, the marking supervisor advises the marker to re-mark the scripts, making appropriate adjustments to the interpretation of the performance standards.

- In double-marked examinations or sections of examinations, coursework or similar activities and performances or products, the degree of comparability between two markers is identified. If, there is a significant discrepancy between the judgments of the two markers, a marking supervisor (Chief Examination Officer) re-marks the relevant questions or sections of the examination. If, in the case of a performance or product, there is a significant discrepancy between the judgments of the two markers, a supervisor's mark is taken into account.

#### 1.4 **Award Regulations**

To qualify for a Level 3 or 4 Certificate, Level 5 Diploma or Level 6 Diploma, candidates must have passed all the units.

The overall aggregate mark for each subject is calculated using the overall percentage marks achieved in each paper. Exempted subjects will be excluded from the weighting. However, the qualification certificate will show the exempted units but the result slip will state "exempted" or "N/A". The coursework/project is regarded as a unit, hence, if candidates fail the coursework, they can not get the award, however, they can re-sit failed units including coursework.

#### 1.5 **BCE Good Practice Policy**

BCE's vision, as stated in its Strategic Plan is *to build an internationally respected Awarding body which gives candidates the capabilities to move successfully into further study or work as confident and responsible citizens.*

We recognise that practice often develops over long periods, however, we also acknowledge that practice which meets agreed policy and regulation is to be accepted in its own right for being committed to effective delivery and management.

**Centres should check for public holidays and notify BCE if an exam date falls on a public holiday in their country. If an exam week falls on a public holiday, the Centre should notify BCE and written permission would be given to postpone the exam to the following week. Postponed examinations cannot be written a week before the actual date, but a week later.**

#### **We define good practice as:**

- Effective practice that goes beyond basic policy or regulation
- Innovation that enhances the learning and experience for learners and candidates
- Practice that has been developed to meet a particular identified need

#### **Identification of Good Practice**

We recognise that good practice is identified formally through reflection or review of the delivery and management of provision. The core processes through which such formal identification of good practice takes place are:

- Annual Evaluations**  
This is an important process in being able to record innovations and developments within disciplines, internal control, processes and systems.
- Examiners' Reports**  
Examiners' reports are particularly useful mechanisms for identifying examples of good practice since the appointee is normally benchmarking the qualification results against comparable provisions within the professional qualifications sector.
- Annual Qualifications Development and Assessment Management Review**  
In annual qualifications development and assessment management review, the Programme Design & Review Panel and Programme Development & Services are responsible for compiling self-evaluation documents which should include potential areas of good practice.
- Approved Centre Reports**  
Approved Centres are responsible for introducing BCE qualification to the world, hence, their views are vital.

### 1.6 Similar/Identical Units

Centres should be aware of the following conflicting units. Learners undertaking these qualifications can be joined [during learning times] as the units are similar/identical. The examination papers/questions are identical where the Unit Titles are exactly the same.

#### Identical Units in Computing Qualifications

	<b>Unit(s)</b>	<b>Qualifications</b>
<b>1.</b>	<ul style="list-style-type: none"> <li>Windows Operating Systems</li> </ul>	Level 5 Diploma in Information Technology (103) Level 5 Diploma in Computerised Accounting (333)
<b>2.</b>	<ul style="list-style-type: none"> <li>Business Computer Systems</li> <li><i>DreamWeaver</i></li> </ul>	Level 5 Diploma in System Design (401) Level 5 Diploma in Business Administration (501) <i>Both groups combine with Diploma in eCommerce &amp; Web Design for DreamWeaver as practicals for Business Computer Systems.</i>
<b>3.</b>	<ul style="list-style-type: none"> <li>HTML Internet Technology</li> <li>HTML Authoring</li> </ul>	Level 4 Certificate in Business Studies & Internet Technology (301) Level 4 Certificate in Computer Fundamentals (105) Level 5 Diploma in eCommerce & Web Design (901)** Level 5 Diploma in Database Developer (997) [ <i>for HTML</i> ] **
	<ul style="list-style-type: none"> <li>Programming the Web with HTML &amp; XML</li> </ul>	Level 5 Diploma in eCommerce & Web Design (901) Level 5 Diploma in Database Developer (997) [ <i>for XML</i> ]
<b>4.</b>	<ul style="list-style-type: none"> <li>C Programming</li> <li>VB.Net Programming</li> </ul>	Level 5 Diploma in Programming (601) Level 6 Advanced Diploma in Computer Science (907)
<b>5.</b>	<ul style="list-style-type: none"> <li>Oracle SQL</li> </ul>	Level 5 Diploma in Database Administration (990) Level 6 Advanced Diploma in Computer Science (907) Level 6 Advanced Diploma in Business Administration (900)
<b>6.</b>	<ul style="list-style-type: none"> <li>Advanced Windows Desktop Operating System</li> </ul>	Level 6 Advanced Diploma in Information Technology (104) Level 6 Advanced Diploma in Graphic Design (992)
<b>7.</b>	<ul style="list-style-type: none"> <li>Windows SQL Server Database Administration</li> </ul>	Level 5 Diploma in Windows Server Networking (200) Level 5 Diploma in Database Administration (990)
<b>8.</b>	<ul style="list-style-type: none"> <li>Microsoft Word</li> </ul>	Level 5 Diploma in Information Technology (103) Level 5 Diploma in Secretarial Studies (777)

\*\* The content is the same; however, examination questions are different

*Identical Units in Business Qualifications*

	<i>Unit(s)</i>	<i>Qualifications</i>
<b>1.</b>	<ul style="list-style-type: none"> <li>Accounting Principles</li> <li>Accounting for Computerised Accounting</li> </ul>	Level 4 Certificate in Business Studies & Internet Technology (301) Level 5 Diploma in Computerised Accounting (333)
<b>2.</b>	<ul style="list-style-type: none"> <li>Accounting / Financial Accounting</li> </ul>	Level 5 Diploma in Accounting & Finance (519) Level 5 Diploma in Business Administration (501) Level 5 Diploma in Administrative Assistant (677) Level 5 Diploma in Secretarial Studies (777)
<b>3.</b>	<ul style="list-style-type: none"> <li>Business Maths</li> </ul>	Level 4 Certificate in Computer Fundamentals (1050) Level 4 Certificate in Business Studies (301)
<b>4.</b>	<ul style="list-style-type: none"> <li>Business Research Methods</li> <li>Business Statistics</li> </ul>	Level 6 Advanced Diploma in Human Resource Management (631) Level 6 Advanced Diploma in Management (890)
<b>5.</b>	<ul style="list-style-type: none"> <li>Business Administration</li> <li>Organisational Management</li> <li>Business Management</li> </ul>	Level 5 Diploma in Business Administration (501) Level 5 Diploma in Management (890) Level 5 Diploma in Administrative Assistant (677)
<b>6.</b>	<ul style="list-style-type: none"> <li>Project Management Skills</li> </ul>	Level 6 Diploma in Project Management (888) Level 6 Advanced Diploma in Human Resource Mgt (631) Level 6 Advanced Diploma in Management (891)
<b>7.</b>	<ul style="list-style-type: none"> <li>Business Ethics</li> <li>Ethics in Management</li> </ul>	Level 5 Diploma in Business Administration (501) Level 6 Advanced Diploma in Human Resources Mgt (631)
<b>8.</b>	<ul style="list-style-type: none"> <li>Project Risk Management</li> </ul>	Level 6 Diploma in Project Management (888) Level 6 Advanced Diploma in Corporate Financial Reporting (520)
<b>9.</b>	<ul style="list-style-type: none"> <li>Economics</li> </ul>	Level 5 Diploma in Business Administration (501) Level 5 Diploma in Business Economics (870)
<b>10.</b>	<ul style="list-style-type: none"> <li>Management Accounting</li> </ul>	Level 5 Diploma in Accounting & Finance (519) Level 6 Advanced Diploma in Business Administration (900)
<b>11.</b>	<ul style="list-style-type: none"> <li>Financial Management / Business Finance</li> </ul>	Level 5 Diploma in Finance (530) Level 5 Diploma in Business Economics (870) Level 6 Advanced Diploma in Business Administration (900)
<b>12.</b>	<ul style="list-style-type: none"> <li>Quantitative Methods for Business</li> </ul>	Level 6 Advanced Diploma in Corporate Financial Reporting (520) Level 6 Advanced Diploma in Finance (531)
<b>13.</b>	<ul style="list-style-type: none"> <li>Marketing Management</li> </ul>	Level 5 Diploma in Marketing (880) Level 6 Advanced Diploma in Business Administration (900)
<b>14.</b>	<ul style="list-style-type: none"> <li>Human Resource Management</li> </ul>	Level 5 Diploma in Human Resource Management (630) Level 6 Advanced Diploma in Business Administration (900)
<b>15.</b>	<ul style="list-style-type: none"> <li>Financial &amp; Managerial Accounting</li> <li>Hospitality Managerial Accounting</li> </ul>	Level 5 Diploma in Finance (530) Level 5 Diploma in Hotel Management (610)

**1.7 Setting Assessment Questions**

Examination questions are short but many e.g. one question can have 10 parts [(i) to (x)]. However, to pass the exam, candidates are required to give detailed and meaningful answers. As it is difficult for candidates to score 20 marks from one question, BCE recommend Exam Setters to set short questions worth 1, 2, 3, 4 or 5 marks etc. each, to give candidates chances of better scoring.

The Programme Development Manager compiles the exam questions. After exam setters finish setting exam questions, copies are distributed between Exam Scrutinisers to highlight errors, type of questions and marking scheme among other things.

The examination questions will then be printed and sent to different centres.

Exams are distributed two weeks before the exam date, using air freight or recorded postal services. BCE policy does not allow exam papers to be at centres for more than five days before the exam date to minimise examination malpractice.

### 1.7.1 BCE Reference Manuals Used in Setting Examinations

Examination questions are set using student manuals. However, to pass the examination, learners should also read recommended cross reference manuals as advised below.

Learners should research from these recommended reading materials to gain more knowledge and understanding.

#### 1.7.1.1 Cross-Reference Manuals for Business Qualifications

##### 1. Level 5 Diploma in Accounting & Finance (519)

Financial Accounting	Corporate Finance	Auditing & Assurance	Taxation	Management Accounting	Forensic Accounting
<ul style="list-style-type: none"> <li>Advanced Financial Reporting</li> <li>Financial Accounting Theory</li> <li>Accounting</li> <li>Business Ethics</li> <li>Ethics in Management</li> <li>Corporate Governance</li> <li>Business Law</li> <li>Financial &amp; Managerial Accounting</li> <li>Business Analysis</li> </ul>	<ul style="list-style-type: none"> <li>Financial Management</li> <li>Economics</li> <li>International Trade</li> <li>Managerial Economics</li> <li>International Business</li> <li>International Mgt</li> <li>International Politics</li> <li>Public Finance</li> <li>Financial Markets &amp; Investments</li> <li>Behavioural Corporate Finance</li> <li>Finance Theory</li> <li>Business Finance</li> <li>Personal Finance</li> </ul>	<ul style="list-style-type: none"> <li>Accounting Information System</li> <li>Project Risk Management</li> <li>Project Quality Management</li> <li>Organisational Behaviour</li> <li>Operations Management</li> <li>Organisational Management</li> <li>Retail Management</li> <li>Financial Risk Management</li> <li>Business Computer Systems</li> <li>Business Legal &amp; Regulatory Environment</li> <li>Financial Accounting Theory</li> </ul>	<ul style="list-style-type: none"> <li>Public Finance</li> <li>Economics of Social Issues</li> <li>Labour Law</li> <li>Economics</li> <li>Managing the Labour Market</li> <li>Advanced Financial Reporting</li> <li>Corporate Governance</li> </ul>	<ul style="list-style-type: none"> <li>Project Management Skills</li> <li>Advanced Management Accounting</li> <li>Industrial Organisation</li> <li>Quantitative Methods for Business</li> <li>Hospitality Managerial Accounting</li> <li>Financial &amp; Managerial Accounting</li> <li>Operations Management</li> </ul>	<ul style="list-style-type: none"> <li>Business Law</li> <li>Corporate Governance</li> <li>Introduction to Computers</li> <li>Business Information System</li> <li>Small Business Computer System</li> <li>Computer Security</li> <li>Network Security</li> <li>Management Information System</li> </ul>

##### 2. Level 6 Diploma in Corporate Financial & Reporting (520)

Advanced Financial Reporting	Advanced Management Accounting	Quantitative Methods for Business	Financial Accounting Theory	Project Risk Management
<ul style="list-style-type: none"> <li>Financial Accounting</li> <li>Corporate Governance</li> <li>Business Ethics</li> <li>Financial Management</li> <li>Ethics in Management</li> </ul>	<ul style="list-style-type: none"> <li>Operations Management</li> <li>Project Management Skills</li> <li>Management Accounting</li> <li>Industrial Organisation</li> <li>Quantitative Methods for Business</li> </ul>	<ul style="list-style-type: none"> <li>Management Science</li> <li>Operations Management</li> <li>Business Statistics</li> <li>Project Management Skills</li> <li>Business Research Methods</li> <li>Business Analysis</li> </ul>	<ul style="list-style-type: none"> <li>Forensic Accounting</li> <li>Organisational Development</li> <li>Entrepreneurship</li> <li>Behavioural Corporate Finance</li> <li>Taxation</li> <li>Finance Theory</li> </ul>	<ul style="list-style-type: none"> <li>Project Management Skills</li> <li>Project Management Information Systems</li> <li>Project Quality Management</li> <li>Strategic Management</li> <li>Organisational Development</li> <li>Economics of Social Issues</li> </ul>

##### 3. Level 5 Diploma in Computerised Accounting (333)

Windows Operating System	Accounting for Computerised Accounting	Accounting Information System	Excel Accounting	Quickbooks Accounting	Sage Accounting
<ul style="list-style-type: none"> <li>Introduction to Computers</li> <li>Advanced Windows Desktop OS</li> <li>Windows Client Networking</li> <li>Overview of Operating Systems</li> </ul>	<ul style="list-style-type: none"> <li>Accounting Principles</li> <li>Business Maths</li> <li>Accounting</li> </ul>	<ul style="list-style-type: none"> <li>Management Information Systems</li> <li>Business Information Systems</li> <li>Business Computer Systems</li> <li>eBusiness Fundamentals</li> <li>Introduction to Computers</li> <li>Computer Fundamentals</li> </ul>	<ul style="list-style-type: none"> <li>Business Maths</li> <li>Excel</li> </ul> <p>[Learners should do a lot of practice in Excel and Mathematical formulas]</p>	<ul style="list-style-type: none"> <li>Accounting Principles</li> <li>Accounting</li> <li>Financial Accounting</li> <li>Financial &amp; Managerial Accounting</li> </ul> <p>[Learners should do a lot of practice in Quickbooks and Accounting formulas]</p>	<ul style="list-style-type: none"> <li>Accounting Principles</li> <li>Accounting</li> <li>Financial Accounting</li> <li>Financial &amp; Managerial Accounting</li> </ul> <p>[Learners should do a lot of practice in Sage and Accounting formulas]</p>

4. **Level 4 Certificate in Business Studies & Internet Technology (301)**

<b>HTML Internet Technology</b>	<b>Accounting Principles</b>	<b>Business Communication</b>	<b>Business Organisation</b>	<b>Business Maths</b>
<ul style="list-style-type: none"> <li>• Introduction to Computers</li> <li>• Email Communication &amp; Internet Tech.</li> <li>• eBusiness Fundamentals</li> <li>• DreamWeaver</li> </ul> <p>[Learners should do a lot of computer practice designing HTML programs ]</p>	<ul style="list-style-type: none"> <li>• Accounting for Computerised Accounting</li> <li>• Accounting Information Systems</li> <li>• Review Business Maths end of chapter exercises</li> </ul>	<ul style="list-style-type: none"> <li>• Business English &amp; Reporting Writing</li> <li>• Managerial Communication &amp; Interpersonal skills</li> <li>• Services Marketing &amp; Management</li> </ul>	<ul style="list-style-type: none"> <li>• Business Administration</li> <li>• Organisational Management</li> <li>• Business Legal Documents</li> <li>• Business Office Skills</li> <li>• Business Legal &amp; Regulatory Environment</li> <li>• Business Ethics</li> </ul>	[Learners should do a lot of practice answering end of chapter exercises]

5. **Level 5 Diploma in Business Administration & Computer Systems (501)**

<b>Business Computer Systems</b>	<b>Accounting</b>	<b>Business Administration</b>	<b>Economics</b>	<b>Business Ethics</b>
<ul style="list-style-type: none"> <li>• eBusiness Fundamentals</li> <li>• Introduction to Computers</li> <li>• Business Information Systems</li> <li>• Management Information Systems</li> <li>• Accounting Information Systems</li> <li>• Computer Fundamentals</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting Principles</li> <li>• Financial Accounting</li> <li>• Auditing &amp; Assurance</li> <li>• Financial Accounting Theory</li> <li>• Advanced Financial Reporting</li> <li>• Financial &amp; Managerial Accounting</li> <li>• Business Analysis</li> <li>• Finance Theory</li> </ul>	<ul style="list-style-type: none"> <li>• Organisational Management</li> <li>• International Business Management</li> <li>• Business Strategy</li> <li>• Human Resource Management</li> <li>• Organisational Development</li> <li>• Marketing Management</li> <li>• Entrepreneurship</li> <li>• Business Office Skills</li> </ul>	<ul style="list-style-type: none"> <li>• International Trade &amp; Policy</li> <li>• Managerial Economics</li> <li>• Economics for Social Issues</li> <li>• Public Finance</li> <li>• Industrial Organisation</li> <li>• Managing the Labour Market</li> <li>• International Politics</li> </ul>	<ul style="list-style-type: none"> <li>• Business Law</li> <li>• Corporate Governance</li> <li>• Business Legal &amp; Regulatory Environment</li> <li>• Ethics in Management</li> <li>• Business Legal Documents</li> <li>• Labour Law</li> </ul>

6. **Level 6 Advanced Diploma in Business Administration & Database Technology (900)**

<b>Management Information Systems / SQL</b>	<b>Human Resource Management</b>	<b>Marketing Management</b>	<b>Management Accounting</b>	<b>Financial Management</b>
<ul style="list-style-type: none"> <li>• Introduction to Computers</li> <li>• eBusiness Fundamentals</li> <li>• Business Information Systems</li> <li>• Business Computer Systems</li> <li>• Accounting Information Systems</li> <li>• Computer Fundamentals</li> </ul> <p><b>SQL</b></p> <ul style="list-style-type: none"> <li>• Access</li> <li>• Windows SQL Server Database Administration</li> </ul>	<ul style="list-style-type: none"> <li>• Business Administration</li> <li>• Organisational Management</li> <li>• Business Ethics</li> <li>• International Business Management</li> <li>• Strategic Management</li> <li>• Business Legal Documents</li> <li>• Industrial Organisation</li> <li>• Ethics in Management</li> </ul>	<ul style="list-style-type: none"> <li>• Strategic Marketing</li> <li>• Strategic Management</li> <li>• International Business Management</li> <li>• International Trade</li> <li>• International Politics</li> <li>• Organisational Management</li> <li>• Operations Management</li> </ul>	<ul style="list-style-type: none"> <li>• Project Management Skills</li> <li>• Advanced Management Accounting</li> <li>• Industrial Organisation</li> <li>• Quantitative Methods for Business</li> <li>• Hospitality Managerial Accounting</li> <li>• Financial &amp; Managerial Accounting</li> <li>• Operations Management</li> </ul>	<ul style="list-style-type: none"> <li>• Financial Accounting</li> <li>• Business Finance</li> <li>• Corporate Finance</li> <li>• Public Finance</li> <li>• Financial Risk Management</li> <li>• Financial Markets &amp; Investments</li> <li>• Finance Theory</li> <li>• Industrial Organisation</li> <li>• International Trade</li> <li>• Financial Accounting Theory</li> </ul>

7. **Level 6 Diploma in Project Management (888)**

<b>Project Management Skills</b>	<b>Project Management Information Systems</b>	<b>Business Analysis</b>	<b>Project Quality Management</b>	<b>Project Risk Management</b>
<ul style="list-style-type: none"> <li>• Operations Management</li> <li>• Quantitative Methods for Business</li> <li>• Management Science</li> <li>• International Business Management</li> <li>• Business Strategy</li> <li>• Business Statistics</li> <li>• Business Research Methods</li> <li>• Human Resource Management</li> <li>• Organisational Development</li> <li>• Corporate Governance</li> <li>• Business Ethics</li> <li>• Entrepreneurship</li> <li>• International Politics</li> <li>• Training &amp; Development</li> <li>• Retail Management</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction to Computers</li> <li>• eBusiness Fundamentals</li> <li>• Business Information Systems</li> <li>• Computer Fundamentals</li> <li>• Business Computer Systems</li> <li>• System Design</li> <li>• Networking Essentials</li> <li>• Network Security</li> <li>• Management Information Systems</li> <li>• Computer Systems Architecture</li> <li>• Software Engineering</li> <li>• Introduction to Programming</li> </ul>	<ul style="list-style-type: none"> <li>• Excel</li> <li>• Strategic Management</li> <li>• Business Research Methods</li> <li>• Ethics in Mgt</li> <li>• Financial &amp; Managerial Accounting</li> <li>• Business Maths</li> <li>• Business Law</li> <li>• Tourism Law</li> <li>• Entrepreneurship</li> <li>• Excel Accounting</li> </ul>	<ul style="list-style-type: none"> <li>• Operations Management</li> <li>• Strategic Management</li> <li>• Business Strategy</li> <li>• Business Ethics</li> <li>• Business Legal &amp; Regulatory Environment</li> <li>• Forensic Accounting</li> <li>• Auditing &amp; Assurance</li> <li>• Ethics in Management</li> </ul>	<ul style="list-style-type: none"> <li>• Project Management Skills</li> <li>• Project Management Information Systems</li> <li>• Project Quality Management</li> <li>• Strategic Management</li> <li>• Organisational Development</li> <li>• Economics of Social Issues</li> </ul>

8. **Level 5 Diploma in Business Economics (630)**

<b>International Trade &amp; Policy</b>	<b>Business Finance</b>	<b>Managerial Economics</b>	<b>Economics</b>	<b>Real Estate Management</b>
<ul style="list-style-type: none"> <li>• International Politics</li> <li>• Entrepreneurship</li> <li>• International Business Management</li> <li>• International Marketing</li> <li>• Travel &amp; Tourism Marketing</li> <li>• Tourism Law</li> <li>• Marketing Management</li> </ul>	<ul style="list-style-type: none"> <li>• Personal Finance</li> <li>• Financial Management</li> <li>• International Trade</li> <li>• International Business Management</li> <li>• International Politics</li> <li>• Public Finance</li> <li>• Financial Markets &amp; Investments</li> <li>• Behavioural Corporate Finance</li> <li>• Corporate Finance</li> </ul>	<ul style="list-style-type: none"> <li>• Industrial Organisation</li> <li>• Strategic Management</li> <li>• Quantitative Methods for Business</li> <li>• Economics for Social Issues</li> <li>• Management Science</li> </ul>	<ul style="list-style-type: none"> <li>• International Trade &amp; Policy</li> <li>• Managerial Economics</li> <li>• Economics for Social Issues</li> <li>• Public Finance</li> <li>• Industrial Organisation</li> <li>• Managing the Labour Market</li> <li>• International Politics</li> <li>• Personal Finance</li> <li>• Purchasing &amp; Supply</li> </ul>	<ul style="list-style-type: none"> <li>• Business Law</li> <li>• Services Marketing &amp; Mgt</li> <li>• Personal Finance</li> <li>• Business Legal &amp; Regulatory Env.</li> <li>• Public Finance</li> <li>• Human Resource Management</li> <li>• Marketing Management</li> <li>• Strategic Management</li> <li>• Retail Management</li> <li>• Consumer Behaviour</li> <li>• Advertising Management</li> </ul>

9. **Level 5 Diploma in Management (890)**

<b>Operations Management</b>	<b>Business Law</b>	<b>Organisational Management</b>	<b>International Business Management</b>	<b>Business Strategy</b>
<ul style="list-style-type: none"> <li>• Project Management Skills</li> <li>• Management Science</li> <li>• Quantitative Methods for Business</li> <li>• Research Methods in Business</li> <li>• Business Statistics</li> <li>• Purchasing &amp; Supply Mgt</li> <li>• Retail Mgt</li> </ul>	<ul style="list-style-type: none"> <li>• Business Ethics</li> <li>• Business Legal &amp; Regulatory Environment</li> <li>• Business Legal Documents</li> <li>• Corporate Governance</li> <li>• Economics of Social Issues</li> <li>• Tourism Law</li> <li>• Labour Law</li> <li>• Ethics in Management</li> </ul>	<ul style="list-style-type: none"> <li>• Business Administration</li> <li>• Inter. Business Mgt</li> <li>• Business Strategy</li> <li>• Human Resource Management</li> <li>• Organisational Development</li> <li>• Marketing Mgt</li> <li>• Entrepreneurship</li> <li>• Business Office Skills</li> <li>• Business Mgt</li> </ul>	<ul style="list-style-type: none"> <li>• International Politics</li> <li>• Entrepreneurship</li> <li>• International Trade &amp; Policy</li> <li>• International Marketing</li> <li>• Travel &amp; Tourism Marketing</li> <li>• Business Research Methods</li> </ul>	<ul style="list-style-type: none"> <li>• Strategic Management</li> <li>• Entrepreneurship</li> <li>• Strategic Marketing</li> <li>• Human Resources Management</li> <li>• Business Organisation</li> <li>• International Trade &amp; Policy</li> <li>• Management Information System</li> </ul>

10. **Level 6 Advanced Diploma in Management (891)**

<b>Project Management Skills</b>	<b>Business Statistics</b>	<b>Strategic Management</b>	<b>Entrepreneurship</b>	<b>International Politics</b>
[see Diploma in Project Management]	<ul style="list-style-type: none"> <li>Business Maths</li> <li>Business Research Methods</li> <li>Quantitative Methods for Business</li> <li>Marketing Research</li> </ul>	<ul style="list-style-type: none"> <li>Business Strategy</li> <li>Corporate Governance</li> <li>Hospitality Strategic Management</li> </ul>	<ul style="list-style-type: none"> <li>Human Resources Management</li> <li>Business Ethics</li> <li>Business Legal &amp; Regulatory Environment</li> <li>Business Law</li> <li>Business Legal Documents</li> <li>Business Maths</li> <li>Accounting Principles</li> <li>Accounting</li> <li>Labour Law</li> <li>Sales Management</li> </ul>	<ul style="list-style-type: none"> <li>Ethics in Management</li> <li>International Trade &amp; Policy</li> <li>International Marketing</li> <li>Travel &amp; Tourism Marketing</li> <li>Tourism Law</li> <li>International Business Management</li> <li>Economics</li> </ul>

11. **Level 5 Diploma in Human Resource Management (630)**

<b>Human Resource Management</b>	<b>Organisational Behaviour</b>	<b>Managing the Labour Market</b>	<b>Labour Law</b>	<b>Training &amp; Development</b>
<ul style="list-style-type: none"> <li>Business Administration</li> <li>Organisational Management</li> <li>Business Ethics</li> <li>International Business Management</li> <li>Strategic Management</li> <li>Business Legal Documents</li> <li>Industrial Organisation</li> <li>Ethics in Management</li> </ul>	<ul style="list-style-type: none"> <li>Organisational Development</li> <li>Ethics in Management</li> <li>Corporate Governance</li> <li>Business Ethics</li> </ul>	<ul style="list-style-type: none"> <li>Economics of Social Issues</li> <li>Economics</li> <li>International Trade</li> <li>Business Legal &amp; Regulatory Environment</li> <li>International Politics</li> </ul>	<ul style="list-style-type: none"> <li>Business Law</li> <li>International Trade &amp; Policy</li> <li>Business Legal Documents</li> <li>Tourism Law</li> </ul>	<ul style="list-style-type: none"> <li>Services Marketing &amp; Mgt</li> <li>Sales Management</li> <li>Business Communication</li> <li>Business Organisation</li> <li>Consumer Behaviour</li> <li>Front Office Management</li> <li>Project Quality Management</li> <li>Help Desk &amp; Problem Solving Skills</li> </ul>

12. **Level 6 Advanced Diploma in Human Resources Management (631)**

<b>Project Management Skills</b>	<b>Organisational Development</b>	<b>Business Research Methods</b>	<b>Industrial Organisation</b>	<b>Ethics of Management</b>
[see Diploma in Project Management]	<ul style="list-style-type: none"> <li>Human Resource Management</li> <li>Organisational Behaviour</li> <li>Consumer Behaviour</li> </ul>	<ul style="list-style-type: none"> <li>Business Maths</li> <li>Business Statistics</li> <li>Marketing Research</li> <li>Quantitative Methods for Business</li> </ul>	<ul style="list-style-type: none"> <li>Economics of Social Issues</li> <li>Quantitative Methods for Business</li> <li>Managerial Economics</li> <li>Economics</li> </ul>	<ul style="list-style-type: none"> <li>Business Law</li> <li>Business Ethics</li> <li>Business Legal &amp; Regulatory Environment</li> <li>Corporate Governance</li> <li>Labour Law</li> </ul>

13. **Level 5 Diploma in Marketing (880)**

<b>Services in Marketing &amp; Mgt</b>	<b>Sales Management</b>	<b>Purchasing &amp; Supply Management</b>	<b>Marketing Management</b>	<b>Retail Management</b>
<ul style="list-style-type: none"> <li>Training &amp; Development</li> <li>Consumer Behaviour</li> <li>Tourism Law</li> <li>Travel &amp; Tourism Marketing</li> <li>Front Office Management</li> <li>Project Quality Management</li> <li>Help Desk &amp; Problem Solving Skills</li> </ul>	<ul style="list-style-type: none"> <li>Organisational Management</li> <li>Travel &amp; Tourism Marketing</li> <li>Entrepreneurship</li> <li>International Marketing</li> <li>Organisational Management</li> <li>Business Law</li> <li>Corporate Governance</li> </ul>	<ul style="list-style-type: none"> <li>Operations Management</li> <li>Quantitative Methods for Business</li> <li>Business Legal &amp; Regulatory Environment</li> <li>Business Ethics</li> </ul>	<ul style="list-style-type: none"> <li>Strategic Marketing</li> <li>Strategic Management</li> <li>International Business Mgt</li> <li>International Trade</li> <li>International Politics</li> <li>Organisational Management</li> <li>Operations Management</li> </ul>	<ul style="list-style-type: none"> <li>Hospitality Management</li> <li>Business Organisation</li> <li>Business Communication</li> <li>Business Legal Documents</li> <li>Business Administration</li> <li>Accounting Principles</li> <li>Managerial Communication &amp; Interpersonal skills</li> <li>Hospitality Managerial Accounting</li> <li>Accounting</li> </ul>

14. **Level 6 Advanced Diploma in Marketing (881)**

<b>Consumer Behaviour</b>	<b>International Marketing</b>	<b>Strategic Marketing</b>	<b>Marketing Research</b>	<b>Advertising Management</b>
<ul style="list-style-type: none"> <li>• Services in Marketing</li> <li>• Organisational Behaviour</li> <li>• Retail Management</li> </ul>	<ul style="list-style-type: none"> <li>• International Trade &amp; Policy</li> <li>• International Politics</li> <li>• International Business Management</li> </ul>	<ul style="list-style-type: none"> <li>• Business Strategy</li> <li>• Strategic Management</li> <li>• Hospitality Strategic Management</li> </ul>	<ul style="list-style-type: none"> <li>• Business Maths</li> <li>• Business Research Methods</li> <li>• Business Statistics</li> <li>• Quantitative Methods for Business</li> </ul>	<ul style="list-style-type: none"> <li>• Sales Management</li> <li>• Marketing Management</li> <li>• Microsoft PowerPoint</li> <li>• Photoshop</li> <li>• Business Ethics</li> <li>• Business Law</li> </ul>

15. **Level 5 Diploma in Finance (530)**

<b>Public Finance</b>	<b>Financial Markets &amp; Investments</b>	<b>Financial Management</b>	<b>Corporate Governance</b>	<b>Financial &amp; Managerial Accounting</b>
<ul style="list-style-type: none"> <li>• Economics</li> <li>• International Politics</li> <li>• International Business Management</li> <li>• Taxation</li> <li>• Economics of Social Issues</li> <li>• Managing the Labour Market</li> <li>• Taxation</li> </ul>	<ul style="list-style-type: none"> <li>• Business Finance</li> <li>• Corporate Finance</li> <li>• International Trade</li> <li>• Behavioural Corporate Finance</li> <li>• Managing the Labour Markets</li> <li>• Project Risk Management</li> </ul>	<ul style="list-style-type: none"> <li>• Financial Accounting</li> <li>• Business Finance</li> <li>• Corporate Finance</li> <li>• Public Finance</li> <li>• Financial Risk Management</li> <li>• Financial Markets &amp; Investments</li> <li>• Finance Theory</li> <li>• Industrial Organisation</li> <li>• International Trade</li> <li>• Financial Accounting Theory</li> </ul>	<ul style="list-style-type: none"> <li>• Business Law</li> <li>• Business Ethics</li> <li>• Business Legal &amp; Regulatory Environment</li> <li>• Ethics in Management</li> <li>• International Business Mgt</li> <li>• Business Legal Documents</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting Principles</li> <li>• Accounting</li> <li>• Financial Accounting</li> <li>• Management Accounting</li> <li>• Adv. Management Accounting</li> <li>• Adv. Financial Reporting</li> <li>• Hospitality Managerial Accounting</li> </ul>

16. **Level 6 Advanced Diploma in Finance (531)**

<b>Corporate Financial Management</b>	<b>Financial Risk Management</b>	<b>Quantitative Methods for Business</b>	<b>Finance Theory</b>	<b>Economics of Social Issues</b>
<ul style="list-style-type: none"> <li>• Financial Management</li> <li>• Financial Markets &amp; Investments</li> <li>• Personal Finance</li> <li>• Business Finance</li> <li>• Corporate Finance</li> </ul>	<ul style="list-style-type: none"> <li>• Economics</li> <li>• Project Risk Management</li> <li>• Financial Markets and Investment</li> <li>• Financial Management</li> </ul>	<ul style="list-style-type: none"> <li>• Management Science</li> <li>• Operations Management</li> <li>• Business Statistics</li> <li>• Project Management Skills</li> <li>• Business Research Methods</li> <li>• Business Analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting</li> <li>• Financial Accounting Theory</li> <li>• Financial Accounting</li> <li>• Financial Managerial Accounting</li> <li>• Forensic Accounting</li> <li>• Adv Financial Reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Economics</li> <li>• International Trade &amp; Policy</li> <li>• International Politics</li> <li>• Managerial Economics</li> <li>• Taxation</li> <li>• Public Finance</li> </ul>

17. **Level 5 Diploma in Administrative Assistant (677)**

<b>Help Desk &amp; Problem Solving Skills</b>	<b>Accounting</b>	<b>Business Management</b>	<b>Business Legal &amp; Regulatory Environment</b>	<b>Personal Finance</b>
<ul style="list-style-type: none"> <li>• Training &amp; Development</li> <li>• Consumer Behaviour</li> <li>• Tourism Law</li> <li>• Front Office Management</li> <li>• Project Quality Management</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting Principles</li> <li>• Financial Accounting</li> <li>• Auditing &amp; Assurance</li> <li>• Financial Accounting Theory</li> <li>• Advanced Financial Reporting</li> <li>• Financial &amp; Managerial Accounting</li> <li>• Business Analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Business Administration</li> <li>• Organisational Management</li> <li>• International Business Management</li> <li>• Business Strategy</li> <li>• Human Resource Management</li> <li>• Organisational Development</li> <li>• Marketing Management</li> <li>• Entrepreneurship</li> <li>• Business Office Skills</li> </ul>	<ul style="list-style-type: none"> <li>• Business Law</li> <li>• Corporate Governance</li> <li>• Business Ethics</li> <li>• International Politics</li> <li>• Business Legal Documents</li> <li>• Tourism Law</li> <li>• Labour Law</li> </ul>	<ul style="list-style-type: none"> <li>• Business Finance</li> <li>• Economics</li> <li>• Financial &amp; Managerial Accounting</li> <li>• Business Maths</li> <li>• Business Ethics</li> <li>• Hospitality Managerial Accounting</li> <li>• Corporate Finance</li> <li>• Financial Management</li> </ul>



18. **Level 5 Diploma in Secretarial Studies (777)**

<b>Computer Keyboard, Typing &amp; Word Processing Skills</b>	<b>Accounting</b>	<b>Business Office Skills</b>	<b>Business Legal Documents</b>	<b>Managerial Communication &amp; Interpersonal Skills</b>
<ul style="list-style-type: none"> <li>• Introduction to Computers</li> <li>• Windows Operating System</li> <li>• Word</li> <li>• Email Communication &amp; Internet Technology</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting Principles</li> <li>• Financial Accounting</li> <li>• Auditing &amp; Assurance</li> <li>• Financial Accounting Theory</li> <li>• Advanced Financial Reporting</li> <li>• Financial &amp; Managerial Accounting</li> <li>• Business Analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Business Organisation</li> <li>• Business Administration</li> <li>• Organisational Management</li> <li>• Business Maths</li> </ul>	<ul style="list-style-type: none"> <li>• Business Law</li> <li>• Corporate Governance</li> <li>• Business Ethics</li> <li>• International Politics</li> <li>• Business Legal &amp; Regulatory Environment</li> <li>• Ethics in Management</li> </ul>	<ul style="list-style-type: none"> <li>• Business Communication</li> <li>• Help Desk &amp; Problem Solving Skills</li> <li>• Services Marketing &amp; Management</li> <li>• Front Office Mgt</li> <li>• Business English &amp; Report Writing</li> </ul>

19. **Level 5 Diploma in Hotel Management (610)**

<b>Front Office Management</b>	<b>Food &amp; Beverage Management</b>	<b>Hospitality Management</b>	<b>Hospitality Managerial Accounting</b>	<b>Hospitality Strategic Management</b>
<ul style="list-style-type: none"> <li>• Business Communication</li> <li>• Business Office Skills</li> <li>• Business Legal &amp; Regulatory Environment</li> <li>• Business Legal Documents</li> <li>• Tourism Law</li> <li>• Business Maths</li> <li>• Services Marketing &amp; Management</li> <li>• Help Desk &amp; Problem Solving Skills</li> <li>• Managerial Comm &amp; Interp. Skills</li> </ul>	[learners to try as many recipes as possible and also to make their own recipes]	<ul style="list-style-type: none"> <li>• Business Administration</li> <li>• International Business Management</li> <li>• Organisational Management</li> <li>• Business Ethics</li> <li>• Tourism Management</li> <li>• Marketing Management</li> <li>• Sales Management</li> <li>• Human Resource Management</li> <li>• Ethics in Management</li> <li>• Tourism Law</li> </ul>	<ul style="list-style-type: none"> <li>• Accounting Principles</li> <li>• Accounting</li> <li>• Financial Accounting</li> <li>• Management Accounting</li> <li>• Adv. Management Accounting</li> <li>• Adv. Financial Reporting</li> <li>• Financial &amp; Managerial Accounting</li> <li>• Taxation</li> </ul>	<ul style="list-style-type: none"> <li>• Business Strategy</li> <li>• Corporate Governance</li> <li>• Strategic Management</li> <li>• Strategic Marketing</li> <li>• Entrepreneurship</li> <li>• Business Organisation</li> </ul>

20. **Level 5 Diploma in Travel & Tourism (620)**

<b>Tourism Management</b>	<b>Travel &amp; Tourism Marketing</b>	<b>Tourism Law</b>	<b>World Geography</b>	<b>GDS Fares &amp; Ticketing</b>
<ul style="list-style-type: none"> <li>• Business Administration</li> <li>• International Business Management</li> <li>• Organisational Management</li> <li>• Business Legal &amp; Regulatory Environment</li> <li>• Hospitality Management</li> <li>• Front Office Management</li> </ul>	<ul style="list-style-type: none"> <li>• Sales Management</li> <li>• Marketing Management</li> <li>• Hospitality Management</li> <li>• Front Office Management</li> <li>• Services Marketing &amp; Management</li> <li>• Strategic Marketing</li> <li>• Advertising Management</li> <li>• Consumer Behaviour</li> </ul>	<ul style="list-style-type: none"> <li>• Business Law</li> <li>• Business Ethics</li> <li>• Ethics in Management</li> <li>• Corporate Governance</li> <li>• Labour Law</li> <li>• Business Legal &amp; Regulatory Environment</li> <li>• Business Legal Documents</li> </ul>	<ul style="list-style-type: none"> <li>• International Trade &amp; Policy</li> <li>• International Business Mgt</li> <li>• International Marketing</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction to Computers</li> <li>• Excel</li> <li>• Business Maths</li> <li>• Windows Operating System</li> <li>• Windows Client Networking</li> </ul>

Please take note: the above reference manuals are ***recommendations for learners to read on their own, not for Centres to incorporate cross reference manuals in class times.*** Centres should encourage learners to do further research on their own than spoon feed them always.

For further reading, see related units under each qualification.

1.7.1.2 **Cross-Reference Manuals for Computing Qualifications**

1. **Level 3 Certificate in Information Systems (102)**

<b>Introduction to Computers</b>	<b>Business Information Systems</b>	<b>Business English &amp; Report Writing</b>
<ul style="list-style-type: none"> <li>Windows Operating Systems</li> <li>Networking Essentials</li> <li>Computer Fundamentals</li> </ul>	<ul style="list-style-type: none"> <li>Accounting Information Systems</li> <li>eBusiness Fundamentals</li> <li>Business Computer Systems</li> <li>Management Information Systems</li> <li>Computer Security</li> <li>Accounting Information System</li> </ul>	<ul style="list-style-type: none"> <li>Business Communication</li> <li>Business Organisation</li> <li>Business Office Skills</li> <li>Business Legal Documents</li> <li>Business Legal &amp; Regulatory Environment</li> <li>Managerial Communication &amp; Interpersonal Skills</li> <li>Business Maths</li> </ul>

2. **Level 5 Diploma in Information Technology (105)**

<b>Windows Operating Systems</b>	<b>PowerPoint</b>	<b>Word</b>	<b>Excel</b>	<b>Access</b>
<ul style="list-style-type: none"> <li>Introduction to Computers</li> <li>Advanced Windows Operating System</li> <li>Windows Client Networking</li> <li>Overview of Operating Systems</li> </ul>	[learners should practice designing Powerpoint programs]	[learners should practice producing Word documents]	<ul style="list-style-type: none"> <li>Excel</li> </ul> [learners should practice using Excel Functions and Mathematical operators]	<ul style="list-style-type: none"> <li>Management Information Systems</li> </ul> [learners should practice designing Access databases and retrieving partial information (queries)]

3. **Level 6 Advanced Diploma in Information Technology (104)**

<b>Advanced Windows Desktop Operating System</b>	<b>Email Comm. &amp; Internet Technology</b>	<b>Advanced Word</b>	<b>Advanced Excel</b>	<b>Advanced Access</b>
<ul style="list-style-type: none"> <li>Introduction to Computers</li> <li>Windows Client Networking</li> <li>Overview of Operating Systems</li> <li>Windows Server Administration</li> </ul>	<ul style="list-style-type: none"> <li>Introduction to Computers</li> <li>HTML Internet Technology</li> <li>eBusiness Fundamentals</li> </ul>	[learners should practice producing documents using Advanced Word tools]	[learners should practice using Advanced Excel tools]	[learners should practice designing Advanced Access databases and retrieving partial information (queries)]

4. **Level 4 Certificate in Computer Fundamentals (105)**

<b>HTML Internet Technology</b>	<b>Introduction to Programming</b>	<b>Computer Fundamentals</b>	<b>QBasic Programming</b>	<b>Business Maths</b>
<ul style="list-style-type: none"> <li>Introduction to Computers</li> <li>Email Communication &amp; Internet Tech.</li> <li>eBusiness Fundamentals</li> <li>DreamWeaver</li> </ul> [Learners should do a lot of computer practice designing HTML programs ]	[learners should practice drawing flowchart diagrams]	<ul style="list-style-type: none"> <li>Business Information System</li> <li>Business Computer Systems</li> <li>Computer Systems Architecture</li> <li>Networking Fundamentals</li> <li>Management Information Systems</li> <li>Computer Security</li> </ul>	<ul style="list-style-type: none"> <li>JavaScript</li> <li>Introduction to Shell Programming</li> </ul> [Learners should do a lot of computer practice designing QBasic programs and drawing flowchart diagrams]	<ul style="list-style-type: none"> <li>Business Communication</li> <li>Business Organisation</li> <li>Business Administration</li> <li>Bus. English &amp; Report Writing</li> <li>Business Legal Documents</li> </ul> [Learners should do a lot of practice answering end of chapter exercises in Business Maths student handbook]

5. **Level 5 Diploma in System Design**

<b>Business Computer Systems</b>	<b>System Design</b>	<b>Network Fundamentals</b>	<b>Pascal Programming</b>	<b>Operating System Management</b>
<ul style="list-style-type: none"> <li>eBusiness Fundamentals</li> <li>Introduction to Computers</li> <li>Business Information Systems</li> <li>Management Information Systems</li> <li>Accounting Information Systems</li> </ul>	<ul style="list-style-type: none"> <li>Software Engineering</li> <li>Organisational Management</li> <li>Introduction to Programming</li> <li>Project Management Information System</li> </ul>	<ul style="list-style-type: none"> <li>Windows Client Networking</li> <li>Networking Essentials</li> <li>Technical Elements of Networking</li> <li>TCP/IP Architecture</li> <li>Network Security</li> <li>Computer Security</li> </ul>	<ul style="list-style-type: none"> <li>Introduction to Programming</li> <li>QBasic Programming</li> <li>JavaScript</li> <li>Introduction to Shell Programming</li> <li>Perl Programming</li> <li>C Programming</li> </ul> <p>[learners should practice designing Pascal programs and drawing flowchart diagrams]</p>	<ul style="list-style-type: none"> <li>Computer Systems Architecture</li> <li>Adv OS Principles</li> <li>Programming Principles</li> <li>Unix Performance Management</li> <li>Advanced Windows Desktop Operating System</li> </ul>

6. **Level 6 Advanced Diploma in Computer Science (907)**

<b>Computer Systems Architecture</b>	<b>Database Technology</b>	<b>Management Science</b>	<b>Data Communication &amp; Networking</b>	<b>Software Engineering</b>	<b>C &amp; VB .Net</b>
<ul style="list-style-type: none"> <li>Networking Fundamentals</li> <li>Computer Fundamentals</li> <li>Business Computer Systems</li> <li>Management Information Systems</li> <li>Overview of Operating Systems</li> <li>Operating System Management</li> <li>Advanced OS Principles</li> </ul>	<ul style="list-style-type: none"> <li>MS Access</li> <li>Windows SQL Server Database</li> <li>Management Information System</li> <li>Oracle SQL Administration</li> </ul>	<ul style="list-style-type: none"> <li>Quantitative Methods for Business</li> <li>Project Management Skills</li> <li>Retail Management</li> <li>Operations Management</li> </ul>	<ul style="list-style-type: none"> <li>Networking Essentials</li> <li>Network Fundamentals</li> <li>Network Security</li> <li>Computer Security</li> <li>Technological Elements of Networks</li> <li>Internetwork Infrastructure</li> <li>Forensic Accounting</li> </ul>	<ul style="list-style-type: none"> <li>System Design</li> <li>Object Oriented Programming (C++/Java)</li> </ul>	[see Diploma in Programming]

7. **Level 4 Certificate in Networking (107)**

<b>Networking Essentials</b>	<b>Windows Client Networking</b>	<b>Windows Server Admin. &amp; Impl.</b>	<b>TCP/IP Network Architecture</b>	<b>Network Security</b>
<ul style="list-style-type: none"> <li>Windows Operating Systems</li> <li>Overview of Operating Systems</li> <li>Technological Elements of Networks</li> <li>Internetwork Infrastructure</li> <li>Network Fundamentals</li> </ul>	<ul style="list-style-type: none"> <li>Windows Operating System</li> <li>Overview of Operating Systems</li> <li>Adv. Windows Desktop Operating System</li> <li>Introduction to Computers</li> </ul>	[Learners should do a lot of computer practice setting up server networking environment ]	<ul style="list-style-type: none"> <li>Data Communication &amp; Networking</li> <li>IP Routing Technology</li> <li>Windows Server Infrastructure</li> </ul> <p>[Learners should do a lot of computer practice subnetting ]</p>	<ul style="list-style-type: none"> <li>Computer Security</li> <li>Computer Forensics under Forensic Accounting</li> <li>Management Information System</li> </ul>

8. **Level 5 Diploma in PC Repair & Structured Cabling (108)**

<b>PC Engineering</b>	<b>Data Recovery &amp; System Configuration</b>	<b>Structured Cabling</b>	<b>Wireless Networking</b>	<b>Computer Security</b>
<ul style="list-style-type: none"> <li>Introduction Computers</li> <li>Windows Operating System</li> <li>Adv. Windows Desktop OS</li> <li>Overview of OS</li> <li>Windows Client Networking</li> </ul>	<ul style="list-style-type: none"> <li>Business Computer Systems</li> <li>Management Information System</li> <li>Network Essentials</li> <li>Operating System Mgt</li> </ul>	<ul style="list-style-type: none"> <li>Networking Essentials</li> <li>Network Fundamentals</li> <li>Introduction to IP Routing</li> <li>Advanced IP Routing</li> <li>Switching</li> </ul> <p>[Learners should do a lot of computer practice configuring LAN environment ]</p>	<ul style="list-style-type: none"> <li>Systems Architecture</li> <li>TCP/IP Network Architecture</li> <li>Technological Elements of Networks</li> <li>Internetwork Infrastructure</li> <li>Data Communication &amp; Networking</li> </ul>	<ul style="list-style-type: none"> <li>Network Security</li> <li>Computer Forensics under Forensic Accounting</li> <li>Management Information System</li> </ul>

9. **Level 5 Diploma in IP Routing (111)**

<b>Technological Elements of Networks</b>	<b>Internetwork Infrastructure</b>	<b>IP Routing Technology</b>	<b>Connecting Routing Devices</b>	<b>Introduction to Telecommunications</b>
<ul style="list-style-type: none"> <li>Windows Operating System</li> <li>Network Essentials</li> <li>Network Fundamentals</li> <li>Overview of Operating Systems</li> <li>Windows Client Networking</li> <li>Windows Server Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Windows Operating System</li> <li>Network Essentials</li> <li>Network Fundamentals</li> <li>Overview of Operating Systems</li> <li>Windows Client Networking</li> <li>Windows Server Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Advanced IP Routing</li> <li>Switching</li> <li>Advanced LAN, WAN &amp; Switching Configuration</li> </ul>	[learners should practice using Cisco IOS and router configuration commands]	<ul style="list-style-type: none"> <li>Telephone Signalling System Technologies</li> <li>Fibre Optic Technology</li> </ul>

10. **Level 6 Advanced Diploma in Routing & Switching (112)**

<b>Advanced IP Routing</b>	<b>Switching</b>	<b>Advanced LAN, WAN &amp; Switching Configuration</b>	<b>Telephone Signalling System Technologies</b>	<b>Fibre Optic Technology</b>
<ul style="list-style-type: none"> <li>IP Routing Technology</li> <li>Connecting Routing Devices</li> </ul> <p>[learners should practice using Cisco IOS and Routing Protocol commands]</p>	[learners should practice using Cisco IOS and Switch configuration commands]	[learners should practice Router & Switch configuration commands]	<ul style="list-style-type: none"> <li>Introduction to Telecommunications</li> </ul>	

11. **Level 4 Certificate in Unix Networking (188)**

<b>Overview of Operating Systems</b>	<b>Introduction to SCO Unix</b>	<b>Introduction to Linux</b>	<b>Introduction to Solaris</b>	<b>Introduction to Shell Programming</b>
<ul style="list-style-type: none"> <li>Introduction to Computers</li> <li>Windows Operating System</li> <li>Adv. Windows Desktop OS</li> <li>Windows Client Networking</li> </ul>	[learners should practice using SCO Unix commands]	[learners should practice using Linux commands]	[learners should practice using Solaris commands]	<ul style="list-style-type: none"> <li>Introduction to Programming</li> <li>QBasic Programming</li> <li>Pascal Programming</li> <li>C Programming</li> </ul> <p>[learners should practice drawing flowchart diagrams]</p>

12. **Level 5 Diploma in Unix Networking (189)**

<b>Unix Performance Management</b>	<b>SCO Unix Administration</b>	<b>Linux Administration</b>	<b>Solaris Administration</b>	<b>Perl Programming</b>
<ul style="list-style-type: none"> <li>Introduction to SCO Unix</li> <li>Introduction to Linux</li> <li>Introduction to Solaris</li> <li>Operating System Management</li> <li>Advanced OS Principles</li> </ul>	[learners should practice using SCO Unix user and administrative commands]	[learners should practice using Linux user and administrative commands]	[learners should practice using Solaris user and administrative commands]	<ul style="list-style-type: none"> <li>Introduction to Programming</li> <li>Introduction to Shell Programming</li> <li>QBasic Programming</li> <li>Pascal Programming</li> <li>C Programming</li> <li>ASP .Net</li> <li>PHP</li> </ul> <p>[learners should practice drawing flowchart diagrams]</p>

13. **Level 5 Diploma in Windows Networking (200)**

<b>Windows Server Administration</b>	<b>Windows Server Infrastructure</b>	<b>Windows Server Active Directory</b>	<b>Windows SQL Server Database Administration</b>	<b>Windows Exchange Server</b>
<ul style="list-style-type: none"> <li>Windows Client Networking</li> <li>Overview of Operating Systems</li> <li>Windows Server Admin &amp; Implementation</li> <li>Network Security</li> <li>Computer Security</li> </ul>	<ul style="list-style-type: none"> <li>TCP/IP Network Architecture</li> <li>Technological Elements of Networks</li> <li>Internetwork Infrastructure</li> </ul>	[learners should practice using Windows Active Directory]	<ul style="list-style-type: none"> <li>Oracle SQL</li> </ul> <p>[learners should practice using Windows Server commands and designing SQL programs]</p>	[learners should practice using Windows Exchange Server]

14. **Level 5 Diploma in eCommerce & Web Design (901)**

<b>eBusiness Fundamentals</b>	<b>HTML Authoring</b>	<b>XML</b>	<b>JavaScript</b>	<b>DreamWeaver</b>	<b>Flash</b>
<ul style="list-style-type: none"> <li>• Introduction to Computers</li> <li>• Business Information System</li> <li>• Networking Essentials</li> <li>• Business Computer Systems</li> <li>• Management Information Systems</li> <li>• Network Fundamentals</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction to Computers</li> <li>• Email Communication &amp; Internet Tech.</li> <li>• eBusiness Fundamentals</li> <li>• DreamWeaver</li> </ul> <p>[Learners should do a lot of practice designing HTML programs ]</p>	<ul style="list-style-type: none"> <li>• XML Programming</li> </ul> <p>[Learners should do a lot of practice designing XML programs ]</p>	<ul style="list-style-type: none"> <li>• Introd. to Programming</li> <li>• Perl Programming</li> <li>• C Programming</li> <li>• Adv JavaScript</li> </ul> <p>[learners should practice designing JavaScript programs and drawing flowchart diagrams]</p>	<p>[Learners should do a lot of practice designing DreamWeaver programs ]</p>	<ul style="list-style-type: none"> <li>• Photoshop</li> </ul> <p>[Learners should do a lot of practice designing Flash programs ]</p>

15. **Level 5 Advanced Diploma in Web Development (902)**

<b>Advanced HTML</b>	<b>Advanced JavaScript</b>	<b>Web Server Configuration</b>	<b>ASP .Net</b>	<b>PhP</b>
<ul style="list-style-type: none"> <li>• HTML</li> <li>• XML</li> <li>• DreamWeaver</li> </ul> <p>[Learners should do a lot of practice designing HTML programs]</p>	<ul style="list-style-type: none"> <li>• Introduction to Programming</li> <li>• Java Script</li> <li>• Perl Programming</li> <li>• Basic C Programming</li> </ul> <p>[Learners should do a lot of practice designing JavaScript programs and drawing flowchart diagrams]</p>	<ul style="list-style-type: none"> <li>• Introduction to Linux</li> <li>• Linux Administration</li> </ul> <p>[Learners should do a lot of practice configuring Web Server]</p>	<ul style="list-style-type: none"> <li>• MySQL</li> <li>• Oracle SQL</li> <li>• Windows SQL Server Database Admin</li> </ul> <p>[Learners should do a lot of practice designing ASP .Net programs ]</p>	<ul style="list-style-type: none"> <li>• MySQL</li> <li>• Oracle SQL</li> <li>• Windows SQL Server Database Admin</li> </ul> <p>[Learners should do a lot of practice designing PhP programs ]</p>

16. **Level 5 Diploma in Graphic Design (991)**

<b>Introduction to Computer Graphics</b>	<b>PageMaker/ InDesign</b>	<b>Illustrator</b>	<b>CorelDraw</b>	<b>AutoCAD</b>	<b>Photoshop</b>
<ul style="list-style-type: none"> <li>• Introduction to Computers</li> <li>• Computer Fundamentals</li> <li>• Windows Operating System</li> <li>• Windows Client Networking</li> <li>• Overview of Operating Systems</li> <li>• Email Comm &amp; Internet Technology</li> </ul>	<p>[learners should practice using PageMaker/ InDesign]</p>	<p>[learners should practice using Illustrator]</p>	<p>[learners should practice using CorelDraw]</p>	<p>[learners should practice using AutoCAD]</p>	<ul style="list-style-type: none"> <li>• Flash</li> </ul> <p>[learners should practice using Photoshop]</p>

17. **Level 6 Advanced Diploma in Graphic Design (992)**

<b>Advanced Windows Desktop Operating System</b>	<b>Computer Animation</b>	<b>Photography &amp; Video Editing</b>	<b>Adobe Acrobat</b>	<b>Advanced AutoCAD</b>
<ul style="list-style-type: none"> <li>• Introduction to Computers</li> <li>• Windows Client Networking</li> <li>• Overview of Operating Systems</li> <li>• Windows Server Administration</li> </ul>	<p>[learners should practice using Computer Animation features]</p>	<p>[learners should practice Photography &amp; Video Editing]</p>	<p>[learners should practice using Adobe Acrobat features]</p>	<ul style="list-style-type: none"> <li>• AutoCAD</li> </ul> <p>[learners should practice using Advanced AutoCAD features]</p>

18. **Level 5 Diploma in Programming (601)**

Programming Principles & Paradigms	C Programming	VB .Net	C++ Programming	Java Programming
<ul style="list-style-type: none"> <li>Introduction to Programming</li> <li>QBasic Programming</li> <li>JavaScript Programming</li> <li>Pascal Programming</li> <li>Introduction to Shell Programming</li> <li>Perl Programming</li> </ul>	<ul style="list-style-type: none"> <li>Introduction to Programming</li> <li>QBasic Programming</li> <li>Pascal Programming</li> <li>JavaScript Programming</li> <li>Introduction to Shell Programming</li> <li>Perl Programming</li> </ul> <p>[learners should practice writing C programs and drawing flowchart diagrams]</p>	<ul style="list-style-type: none"> <li>Introduction to Programming</li> <li>QBasic Programming</li> <li>Pascal Programming</li> <li>JavaScript Programming</li> <li>Introduction to Shell Programming</li> <li>Perl Programming</li> <li>PHP .Net</li> <li>ASP .Net</li> </ul> <p>[learners should practice writing VB .Net programs and drawing flowchart diagrams]</p>	<ul style="list-style-type: none"> <li>Introduction to Programming</li> <li>QBasic Programming</li> <li>Pascal Programming</li> <li>JavaScript Programming</li> <li>Introduction to Shell Programming</li> <li>Perl Programming</li> </ul> <p>[learners should practice writing C++ programs and drawing flowchart diagrams]</p>	<ul style="list-style-type: none"> <li>Introduction to Programming</li> <li>QBasic Programming</li> <li>Pascal Programming</li> <li>JavaScript Programming</li> <li>Introduction to Shell Programming</li> <li>Perl Programming</li> </ul> <p>[learners should practice writing Java programs and drawing flowchart diagrams]</p>

19. **Level 6 Advanced Diploma in Programming (602)**

Advanced Operating System Principles	Advanced C Programming	Advanced VB .Net	Advanced C++ Programming	Advanced Java Programming
<ul style="list-style-type: none"> <li>Operating System Management</li> <li>Computer Systems Architecture</li> <li>Unix Performance Management</li> <li>Overview of Operating System</li> </ul>	<ul style="list-style-type: none"> <li>C Programming</li> </ul> <p>[learners should practice writing Advanced C programs and drawing flowchart diagrams]</p>	<ul style="list-style-type: none"> <li>VB .Net Programming</li> </ul> <p>[learners should practice writing Advanced VB .Net programs and drawing flowchart diagrams]</p>	<ul style="list-style-type: none"> <li>C++ Programming</li> </ul> <p>[learners should practice writing Advanced C++ programs and drawing flowchart diagrams]</p>	<ul style="list-style-type: none"> <li>Java Programming</li> <li>Unix Networking Management</li> </ul> <p>[learners should practice writing Advanced Java programs and drawing flowchart diagrams]</p>

20. **Level 5 Diploma in Database Administration (990)**

Oracle SQL	PL/SQL	Oracle Database Administration	Oracle Solaris Network Administration	Windows SQL Server Database Admin.
<ul style="list-style-type: none"> <li>Management Information System</li> <li>Access</li> </ul> <p>[learners should practice writing Oracle SQL programs]</p>	<p>[learners should practice writing Oracle PL/SQL programs]</p>	<p>[learners should practice using Oracle Administration commands]</p>	<ul style="list-style-type: none"> <li>Introduction to Solaris</li> <li>Solaris Administration</li> <li>Networking Essentials</li> <li>TCP/IP Network Architecture</li> <li>Network Fundamentals</li> <li>Data Communication &amp; Networking</li> </ul>	<p>[learners should practice using Windows Server commands and designing SQL programs]</p>

21. **Level 5 Diploma in Database Developer (997)**

Using HTML & XML	Oracle Forms Developer	Oracle Reports Developer	Oracle Designer	Oracle JDeveloper
<p>[see HTML and XML in Diploma in eCommerce &amp; Web Design]</p>	<ul style="list-style-type: none"> <li>Oracle SQL</li> <li>Oracle PL/SQL</li> <li>Oracle Administration</li> </ul>	<ul style="list-style-type: none"> <li>Oracle SQL</li> <li>Oracle PL/SQL</li> <li>Oracle Administration</li> </ul>	<ul style="list-style-type: none"> <li>Oracle SQL</li> <li>Oracle PL/SQL</li> <li>Oracle Administration</li> </ul>	<p>[learners should practice designing Oracle JDeveloper programs]</p>

Please take note: the above reference manuals are ***recommendations for learners to read on their own, not for Centres to incorporate cross reference manuals in class times.*** Centres should encourage learners to do further research on their own than spoon feed them always.

For further reading, see related units under each qualification.

## 2.1 BCE Assessment Procedures

[see Accreditation Handbook; Chapter 3 – Section 3.2.1]

Business & Computing Examinations (BCE)