

COMPUTER APPLICATIONS TECHNOLOGY (Updated April 2013)

A. MEANS OF ASSESSMENT

Paper 1	3 hours	(150 marks reduced to 100)	[100]
Paper 2	3 hours	(180 marks reduced to 100)	[100]
Practical Assessment Task		(180 marks reduced to 100)	[100]
School Based Assessment			[100]

400 marks

B. REQUIREMENTS

To be read in conjunction with the: *Curriculum and Assessment Policy Statement (CAPS) Computer Applications Technology – Section 3*. Department: Basic Education Republic of South Africa (2011).

EXAMINATIONS

PAPER 2: One 3-hour practical paper of 180 marks

This will be a practical paper, externally set, administered internally, externally marked and externally moderated in Grade 12. This will be a 3 hour paper, out of 180 marks, reduced to 100 marks.

This paper assesses the practical skills pertaining to Solution Development, that is the application packages studied, namely word processing, spreadsheets and databases as well as creating a simple web page using HTML.

Presentations will only be assessed in the Practical Assessment Task and NOT in the examinations. These skills will be assessed in an integrated manner based on real-life scenarios. Problem solving and aspects of computer management will form part of the assessment of the application questions in this paper. The paper will comprise of questions based on a scenario and will cover the following content areas in an integrated manner:

Table 1: Weighting per content area

Content Areas	Marks/180
System Technologies – Computer Management	20 ±5
Solution Development – Word Processing including integration	50 ±5
Solution Development – Spreadsheet including integration	50 ±5
Solution Development – Database including integration	40 ±5
Solution Development – Web Development (HTML Design)	20 ±5

The formal assessment will cater for a range of cognitive levels and abilities of learners in the ratio given below: Refer to *APPENDIX I – Blooms Questioning Levels*

- Lower order (Routine procedures) 30%
- Middle order (Multi-step procedures) 40%
- Higher order (Problem solving) 30%

An information sheet with HTML tags will be provided for use with the question on web development.

The learner will not be required to enter large amounts of data. The required data could be retrieved from the data disk or imported from documents such as a text file, word processing document, a database table or a spreadsheet.

DETAILS OF THE PRACTICAL EXAMINATION (PAPER 2)

Teachers need to ensure that the full package (word processor, spreadsheet, and database), including wizards and help, is installed and available on the computers used by learners taking this subject and this examination. Learners will require the use of a Text Editor, e.g. Notepad, WordPad and Notepad ++ for the HTML coding. Learners writing through the medium of Afrikaans must have an Afrikaans spell check installed. **If you are using Microsoft software, Microsoft Office 2007 is the minimum software requirement. This will become necessary for Grade 12 in 2014.**

In the three hour exam, learners will be required to solve problems using the application packages namely word processing, spreadsheets, databases and Web development. The learners will be examined on the skills and content described in *Curriculum and Assessment Policy Statement (CAPS) Computer Applications Technology – Section 3*. Department: Basic Education Republic of South Africa (2011).

PAPER 1: One 3-hour written paper of 150 marks

The paper will cover all theory aspects, including elements of Solution Development (viz. application packages and file management). A section will also assess the understanding of the technologies studied to make informed decisions in a real – life end – user scenario, ranging from choices of technology to its responsible use.

This will be a written paper externally set, externally marked and externally moderated in Grade 12. This will be a 3 hour paper, out of 150 marks, reduced to 100 marks

Table 2: Weighting per content area

Content Areas	Marks/150
Solution Development	30 ±3
Systems Technologies	60 ±3
Internet Technologies	15 ±3
Network Technologies	15 ±3
Information Management	15 ±3
Social Implications	15 ±3

Table 3: Breakdown of the structure of the question paper:

Section	Description	Marks/150
A	<ul style="list-style-type: none"> Short questions A range of short questions aligned to all the topics. 	±25
B	<ul style="list-style-type: none"> Question 3: Systems Technologies Questions related to the content, concepts and skills in the systems technologies topic area. 	±25
	<ul style="list-style-type: none"> Question 4: Internet and Network Technologies Questions related to the content, concepts and skills in the Internet and WWW, e- communication and network technology topic areas. 	±15
	<ul style="list-style-type: none"> Question 5: Information Management Questions related to the management of information. 	±10
	<ul style="list-style-type: none"> Question 6: Social Implications Questions are focused on the concepts and skills in the social implications focus area, namely impact of ICTs on society and health, social, legal, ethical, security and environmental issues. 	±10
	<ul style="list-style-type: none"> Question 7: Solution development Questions focused on the solution development topic area, namely the knowledge and understanding that supports the practical application of skills. 	±15
C	<ul style="list-style-type: none"> Question 8: Integrated Scenario This section is based on a single scenario and will be aligned to all the topics. This section will also assess the understanding of these technologies to make informed decisions in a real-life end-user scenario, ranging from choices of technology to its responsible use. 	±50

DETAILS OF THE THEORY EXAMINATION (PAPER 1)

The content assessed in the paper is as described in *Curriculum and Assessment Policy Statement (CAPS) Computer Applications Technology – Section 3*. Department: Basic Education Republic of South Africa (2011). Due to the conceptual progression of content across the grades, content and skills from Grade 10 to 12 will be assessed in the external papers at the end of Grade 12.

A list of emerging technologies to be covered for examination purposes will be provided each year to schools by the end of the previous year.

The formal assessment will cater for a range of cognitive levels and abilities of learners in the ratio given below: Refer to *APPENDIX I – Blooms Questioning Levels*

- Lower order (Knowledge/remembering) 30%
- Middle order (Understanding/applying) 40%
- Higher order (Analysing/evaluating/creating) 30%

PRACTICAL ASSESSMENT TASK (PAT)

The Practical Assessment Task (PAT) is an assessment of the learner's individual interaction with information and the way in which he or she presents that information. The information will finally be presented in a number of documents to communicate a solution in an integrated manner.

The purpose of the PAT is to give learners an opportunity to demonstrate their skills in the use of the application packages that they have studied, i.e. word processing, spreadsheet, database and a fourth package of their choice. The fourth package that a learner must master can differ from school to school. For this reason, the fourth package is only assessed in the Practical Assessment Task and not in the final practical paper. This project will form 25% (100 marks) of the overall Grade 12 assessment.

The PAT requirements and assessment criteria will be provided, internally marked and externally moderated. The teachers must choose a task that matches the criteria.

Refer to the following IEB documents for further information:

- CAT – Grade 12 – IEB PAT Assessment Tools
- CAT – Grade 12 – IEB PAT Task Guidelines

SCHOOL BASED ASSESSMENT (SBA)

School based assessment (SBA) comprises 25% of the total assessment for the National Senior Certificate. The requirements for the school-based component of the Senior Certificate assessment are outlined in Table 3.

All schools must make available the SBA evidence of all learners, should it be required by the IEB or Umalusi.

These Subject Assessment Guidelines must be read in conjunction with the IEB Manual for the Moderation of School Based Assessment (2011) available at www.ieb.co.za.

Table 4: SBA Portfolio Requirements for Grade 12

Test 1/ Exam	Standardised Theory Test OR Mid-year Theory Paper Content Areas covering Theory topics (e.g. hardware, software, networking, legal, ethical, security, safety, etc.)	15
Test 2/ Exam	Standardised Practical Test OR Mid-year Practical Paper Content Areas covering Solution Development topics (apply integrated skills of word processing, spreadsheets, databases and Web Development)	15
Task 1/ Test 3	Alternate assessment tasks OR Standardised Test	15
Task 2/ Test 4	Alternate assessment tasks OR Standardised Test	15
Exam	Prelim: Theory Paper	20
Exam	Prelim: Practical Paper	20
TOTAL – SCHOOL BASED ASSESSMENT (SBA)		100

The SBA will be externally moderated. Each learner is required to collate the evidence of the SBA tests and exams during their Grade 12 year. They should be informed of the requirements for the SBA towards the end of their Grade 11 year.

- All tests and examinations in the SBA should be moderated by a teacher either in your school or cluster. Refer to APPENDIX F – Sample Evidence of Moderation
- The prelim papers should include an analysis grid. Refer to APPENDIX I – The Blooms Questioning Levels; APPENDIX G – Sample Practical Paper Analysis Grid
APPENDIX H – Sample Theory Paper Analysis Grid

DETAILS OF THE SBA

Alternate Assessment Tasks

The tasks should be detailed and follow the principles of assessment. The tasks should be descriptive, allow for formative assessment and give details of deadlines and how the task is to be structured. The task must give the learner all the information required to help them produce their task. The task and the rubric must be moderated using the principles of assessment. The tasks should cover a substantial amount of content and the duration should be at least 40 minutes.

Tests

A test could be a practical test or a written test. The programme of assessment should reflect a balance between practical and written tests. A test for formal assessment should not comprise of a series of small tests, but should cover a substantial amount of content and the duration should be at least 40 minutes. Each test and examination must reflect different cognitive levels.

C. MODERATION

Regional Moderation of the learner PAT and SBA (if requested by the IEB)

Please refer to the *Manual for Regional Moderators* dated 2011.

The Teacher's and Learner's Files will be moderated using *APPENDIX D – SBA & PAT Moderation Form*.

The school must provide the PAT and SBA results for all learners in the subject and in rank order to the Regional Moderator (RM) via fax or e-mail. The RM will make his/her selection from the list. If some marks are outstanding then the results should be headed *Preliminary PAT and SBA results*.

The RM selects 10% sample of learner's PATs across a range of marks (a min of 5 PATs).

Teachers may make use of electronic submission methods when submitting their teacher and/or learner files to Regional Moderators. During regional moderation teachers need to present:

- A Teacher's File
- The 10% sample of learners' PATs
- If requested by the IEB, the Learners' SBA Files (10%) identified for sample moderation

National Moderation for SBA and/or PAT (if requested by the IEB)

If Learners' Files have been called for National Moderation, a copy of the completed moderation tool (Appendix D) must be included in the Teacher's File as evidence of regional moderation. This must be signed by the teacher as well as the RM. It is important that Appendix D draws the attention of the sample moderating team at national moderation to particularly good work, any problems identified and any circumstances with which they should be familiar in order to help them make fair and pertinent recommendations. It is the responsibility of the teacher to inform the school management of the outcome of the regional process in order to prepare for national moderation.

SBA and PAT evidence must be submitted to the IEB if requested by the IEB. Teachers must include:

- The list, provided by the IEB, of learners identified for national year-end moderation.
- Fill in the list provided by the IEB for all your learners' SBA and PAT marks to be used for data capture.
- Their reasons for deducting marks to facilitate moderation. They should indicate these on the mark sheets.
- A Teacher's SBA and PAT File together with evidence of moderation of tasks and rubrics.
- Learners' SBA and/or PAT Files identified for national year-end moderation and any additional Learners' Files that you wish to send should the sample not give a good representation of the group.

Pack your selected Learners' SBA and/or PAT Files together with the Teacher's File in a box or envelope. Attach a copy of the ranked mark sheet supplied by the IEB on the outside of the box/envelope clearly indicating your school's centre number, subject, grade and 'SBA' and/or 'PAT'.

The committee moderates a smaller sample of the work produced by learners against specific criteria and is required to submit a report that is returned to schools. The moderation committee uses the completed forms submitted after regional moderation to guide their work and this committee has the authority to make motivated recommendations for the changing of marks should they deem this to be necessary.

Teacher's SBA and PAT File for both Regional and/or National Moderation

Please ensure that all of the documentation is clearly organised. The Teacher's SBA and PAT File should have a table of contents and each section should be clearly demarcated using file dividers or tabs so that sections are separated and easily accessible. Teachers may make use of electronic submission methods when submitting their teacher files to Regional Moderators.

The following should be included in the Teacher's SBA in the following order:

- A front cover that includes a heading 'Teacher's SBA', the centre number, the cluster number, the cluster name and the teacher's name and surname.
- *Appendix C – Teacher's Record of Marks* – shows the results for all learners on one sheet in an electronic format.
- *Appendix F – Letter from the Principal* – signed by the Principal.
- A copy of all tests and examination.
- Assessment tools and marking guidelines used to evaluate the tests and examination.
- Evidence of analysis in prelim exams as a minimum requirement.
- A list of learners for regional and/or national moderation.
- Evidence of moderation, i.e. moderated tests, minutes, policies or checklists.
- PAT description and Assessment Tools.
- Two CD/DVDs (labelled 'SBA' and 'PAT' with the centre number) containing **ALL** learners' SBA evidence and PAT evidence separately. Each learner's work should be in a separate folder with their examination number as the name of the folder.

Learner's SBA File for both Regional and/or National Moderation

Please ensure that all the documentation is clearly organised. The Learner's SBA File should have a table of contents and each section should be clearly demarcated using file dividers or tables so that sections are separated and easily accessible. Teachers may make use of electronic submission methods when submitting their teacher and/or learner files to Regional Moderators.

The following should be included in the Learner's SBA File in the following order:

- A front cover that includes a heading 'SBA', the centre number, learner's name and surname and examination number.
- *APPENDIX A – Consolidation Form for Learners* – includes all SBA/PAT marks in an electronic format.
- *APPENDIX B - Declaration Form* for Learners – learner and teacher to sign.
- Scripts for all tests and exams.
- Assessment tools for all tests and examinations that clearly indicate the marks awarded to each learner. Show where and why the marks were deducted.

There must be evidence of the assessment in the form of a comment or a mark on the actual mark sheet or script.

Learner's PAT File for both Regional and/or National Moderation

Please ensure that all the documentation is clearly organised. The Learner's PAT File should have a table of contents and each section should be clearly demarcated using file dividers or tables so that sections are separated and easily accessible.

The following should be included in the Learner's PAT File in the following order:

- A front cover which includes a heading 'PAT', the centre number, learner's name and surname and examination number.
- Appendix A – *Consolidation Form for Learners* – includes all SBA/PAT marks in an electronic format.
- Appendix B – *Declaration Form* – Learner and Teacher to sign.
- Printouts for all Phases and Tasks.
- Assessment tools for all Phases and Tasks, which clearly indicates the marks awarded to each learner. Show where and why the marks were deducted.

There must be evidence of the assessment in the form of a comment or a mark on the actual mark sheet or printouts.

D. ADMINISTRATIVE AND SUPPORT DOCUMENTATION

APPENDIX A – Consolidation Form for Learners

APPENDIX B – Declaration Form for Learners

APPENDIX C – Teacher's Record of Marks

APPENDIX D – SBA & PAT Moderation Form

APPENDIX E – Letter from the Principal

APPENDIX F – Sample Evidence of Moderation Form

APPENDIX G – Sample Practical Paper Analysis Grid

APPENDIX H – Sample Theory Paper Analysis Grid

APPENDIX I – Blooms Cognitive Levels

IEB COPYRIGHT

APPENDIX A



COMPUTER APPLICATIONS TECHNOLOGY
CONSOLIDATION FORM FOR LEARNERS

Centre Number

Learner's Examination Number

School Based Assessment (SBA)						
					Scaled Marks	
Task description	Date of Submission	Brief Description	Actual Mark	Max Mark	Actual Mark	Max Mark
Test 1 Theory						15
Test 2 Practical						15
Alternate Assessment Task OR Test 3						15
Alternate Assessment Task OR Test 4						15
Prelim Exam Theory						20
Prelim Exam Practical						20
Total SBA						100

Practical Assessment Task (PAT)					
				Scaled Marks	
Brief Description	Date of Submission	Actual Mark	Max Mark	Actual mark	Max Mark
					100

TOTAL (SBA + PAT)

200

APPENDIX B



COMPUTER APPLICATIONS TECHNOLOGY

DECLARATION FORM FOR LEARNERS

This form must be completed by the learner, verified by the teacher and included as the 1st Page of the learner's SBA file

Centre Number

Learner's Examination Number

DECLARATION BY THE LEARNER

I, _____
(PRINT full names)

declare that all the external sources used in my SBA/PAT have been properly referenced and that the remaining work contained in this SBA/PAT is my own original work. I understand that if this is found to be untrue, I am liable for disqualification from the Senior Certificate Examination.

Signed: _____ Date: _____

LEARNER

DECLARATION BY THE LEARNER'S TEACHER

I, _____
(PRINT name and title of teacher), at

_____ (PRINT name of school)

declare that the work provided by this learner has been monitored and checked for Plagiarism.

Signed: _____ Date: _____

TEACHER

This declaration must be completed and filed immediately after

Appendix A: Consolidation Form for Learners in the learner's SBA/PAT file

APPENDIX D



COMPUTER APPLICATIONS TECHNOLOGY

SBA & PAT MODERATION FORM

Centre Number		Moderation	Regional / National (Circle where applicable)
Teacher's Name		School	
Cluster Name		Cluster Number	
Number of Cluster Meetings attended		out of a possible (maximum)	
Number of learners entered for the National Senior Certificate Examination with the IEB		Number of SBAs and PATs moderated by the RM in the centre	

Teacher's File					
Teacher's File available	Y/N	Content page	Y/N	Cover sheet with centre's details clearly labelled	Y/N
SBA					
Test 1 Theory		Y/N		Assessment Tool with memorandum present	Y/N
Test 2 Practical		Y/N		Assessment Tool with memorandum present	Y/N
Alternate Assessment Task 1/Test 3		Y/N		Assessment Tool with memorandum present	Y/N
Alternate Assessment Task 2/Test 4		Y/N		Assessment Tool with memorandum present	Y/N
Prelim Examination: Practical		Y/N		Assessment Tool with memorandum present	Y/N
Prelim Examination: Theory		Y/N		Assessment Tool with memorandum present	Y/N
Are the duration of tests and the exam indicated?		Y/N		Are the instructions clear?	Y/N
Examination analysed to cognitive levels – analysis grids present					
PAT Task Descriptions					
Practical Assessment Task (PAT)		Y/N		Assessment Tool present (e.g. rubric, memoranda, checklists)	Y/N
Recording/Administration					
Appendix C – Learner's achievement accurately recorded		Y/N		Appropriate mark allocation?	Y/N
Appendix E – Letter from Principal		Y/N		All documentation signed and dated?	Y/N
Evidence of minutes/agendas of cluster meetings		Y/N			

Tests and Examinations Standard					
Test 1 Theory	inappropriate	consolidating	acceptable	Evidence of moderation	Y/N
Test 2 Practical	inappropriate	consolidating	acceptable	Evidence of moderation	Y/N
Alternate Assessment Task / Test 3	inappropriate	consolidating	acceptable	Evidence of moderation	Y/N
Alternate Assessment Task / Test 4	inappropriate	consolidating	acceptable	Evidence of moderation	Y/N
Prelim Examination: Practical	inappropriate	consolidating	acceptable	Evidence of moderation	Y/N
Prelim Examination: Theory	inappropriate	consolidating	acceptable	Evidence of moderation	Y/N

Learner's SBA Files			
Appendix A - Consolidation Form for Learner	Y/N	Accurately converted, recorded and allocated?	Y/N
Appendix B - Declaration Form accurately completed	Y/N	Cover sheet with learner's details clearly labelled?	Y/N
Content page present	Y/N		
Learner's PAT Files			
PAT Assessment Tools for Learner	Y/N	Accurately converted, recorded and allocated?	Y/N
Appendix B - Declaration Form accurately completed	Y/N	Cover sheet with learner's details clearly labelled?	Y/N
Content page present	Y/N		

Moderation of evidence provided: Tests, Examinations and Practical Assessment Task			
Practical Assessment Task (PAT)			
Appendix D - Regional SBA Moderation Form available if National Moderation requested	Y/N	IEB list used for capturing marks available	Y/N
Project based on a common scenario?	Y/N	Topic of a suitable nature?	Y/N
Correct documentation according to guidelines?	Y/N	Marked according to assessment tool and accurate?	Y/N
School Based Assessment (SBA)			Requested by the IEB?
Appendix D - Regional SBA Moderation Form available if National Moderation requested	Y/N	IEB list used for capturing marks available	Y/N
Test 1 – Theory – scripts included?	Y/N	Marked according to assessment tool and accurate?	Y/N
Test 2 – Practical – printouts included?	Y/N	Marked according to assessment tool and accurate?	Y/N
Alternate Assessment Task / Test 3 –printouts included/scripts?	Y/N	Marked according to assessment tool and accurate?	Y/N
Alternate Assessment Task / Test 4 –printouts included/scripts?	Y/N	Marked according to assessment tool and accurate?	Y/N
Prelim Examination: Practical – printouts included?	Y/N	Marked according to assessment tool and accurate?	Y/N
Prelim Examination: Theory – scripts/printouts included?	Y/N	Marked according to assessment tool and accurate?	Y/N

Additional Comments:

TEACHER'S SIGNATURE _____

Date: _____

RMs SIGNATURE _____

Date: _____

NATIONAL MODERATOR'S SIGNATURE _____

Date: _____

(Moderator to please sign and date the front of the Teacher's File as well as SBAs/PATs moderated using a green pen)

APPENDIX E



**COMPUTER APPLICATIONS TECHNOLOGY
LETTER FROM THE PRINCIPAL**

SCHOOL ADDRESS

The IEB
P O Box 875
Highlands North
2037

Dear IEB Moderator

RE: SCHOOL BASED ASSESSMENT AND MODERATION OF SBA IN GRADE 12

COMPUTER APPLICATIONS TECHNOLOGY

We certify that:

Teachers of the same subject have ensured that	Circle your response	
they have met regularly to reflect on and discuss issues of standardisation	YES	NO
the assessments they have set learners are of the required standard	YES	NO
the memoranda they have used for marking are accurate and functional	YES	NO
the assessments learners' have completed meet the criteria described in the IEB Subject Assessment Guidelines	YES	NO
marking is complete and of the appropriate standard	YES	NO
all administrative procedures have been correctly completed	YES	NO
all information on the 1 st page of the SBA/PAT (Appendix A) in each learner's SBA File is complete and correct	YES	NO

 TEACHER

 PRINCIPAL

DATE: _____

DATE: _____

APPENDIX F



**COMPUTER APPLICATIONS TECHNOLOGY
SAMPLE EVIDENCE OF MODERATION FORM**

Centre Number/School				Date	
Assessment Type	Alternative Assessment Task	Test	Exam	Length	
Set By				Moderated by	

Please tick the appropriate column (Yes/No)

Use of marking grid	Yes	No	Comment
Updated marking grid used			
Allocation of marks justified			

Comments:

MODERATOR'S SIGNATURE _____

Date: _____

To be completed and returned to the school

APPENDIX G



COMPUTER APPLICATIONS TECHNOLOGY
SAMPLE PRACTICAL ANALYSIS GRID

	Taxonomy			Content Areas					
	Lower Order	Middle Order	Higher Order						
Question	Routine Procedures	Multi-Step Procedures	Evaluation and Problem Solving	Computer Management	Word Processing	Spreadsheet	Database	Web Development	Question Totals
	30%	40%	30%	11%	28%	28%	22%	11%	100%
1.1.1									0
1.2.1									0
Total Question 1	0	0	0	0	0	0	0	0	0
2.1									0
Total Question 2	0	0	0	0	0	0	0	0	0
3.1									0
Total Question 3	0	0	0	0	0	0	0	0	0
4.1.1									0
Total Question 4	0	0	0	0	0	0	0	0	0
5.1.1									0
Total Question 5	0	0	0	0	0	0	0	0	0
6.1.1									0
Total Question 6	0	0	0	0	0	0	0	0	0
7.1.1									0
Total Question 7	0	0	0	0	0	0	0	0	0
8.1.1									0
Total Question 8	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0
Percentages	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX H



COMPUTER APPLICATIONS TECHNOLOGY

SAMPLE THEORY ANALYSIS GRID

	Taxonomy			Content Areas						
	Lower Order	Middle Order	Higher Order							
Question	Knowledge	Applying Knowledge in Familiar Contexts	Reasoning & Reflecting Applying Knowledge in unfamiliar contexts	Solution Development	Systems Technologies	Internet Technologies	Network Technologies	Information Management	Social Implications	Question Totals
	30%	40%	30%	20%	40%	10%	10%	10%	10%	100%
1.1.1										0
1.2.1										0
Total Question 1	0	0	0	0	0	0	0	0	0	0
2.1										0
Total Question 2	0	0	0	0	0	0	0	0	0	0
3.1										0
Total Question 3	0	0	0	0	0	0	0	0	0	0
4.1.1										0
Total Question 4	0	0	0	0	0	0	0	0	0	0
5.1.1										0
Total Question 5	0	0	0	0	0	0	0	0	0	0
6.1.1										0
Total Question 6	0	0	0	0	0	0	0	0	0	0
7.1.1										0
Total Question 7	0	0	0	0	0	0	0	0	0	0
8.1.1										0
Total Question 8	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0
Percentages	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX I



COMPUTER APPLICATIONS TECHNOLOGY

BLOOMS QUESTIONING LEVELS

COGNITIVE	LOWER ORDER SKILLS		MIDDLE ORDER SKILLS	HIGHER ORDER SKILLS		
THEORY	KNOWLEDGE/REMEMBERING		UNDERSTANDING/ APPLYING	ANALYSING/EVALUATING/CREATING		
PRACTICAL	ROUTINE PROCEDURES		MULTI-STEP PROCEDURES	EVALUATION & PROBLEM SOLVING		
BLOOMS	KNOWLEDGE	COMPREHENSION	APPLICATION	ANALYSIS	SYNTHESIS	EVALUATION
Description	Information Gathering Retrieving, recalling or recognising knowledge from memory. Remembering is when memory is used to produce definitions, facts or lists, or recite or retrieve knowledge/learning.	Confirming Constructing meaning from different types of functions whether they are written or graphic.	Making use of knowledge Applying related and refers to situations where learned material is used through products like models, presentation, interviews and simulations.	Taking apart Breaking concepts into parts, determining how the parts relate or interrelate to one another or to an overall purpose. Mental actions include differentiating, organizing and attributing as well as being able to distinguish between components.	Putting Together Putting the elements together to form a coherent or functional whole; reorganising elements into a new pattern or structure through generating, planning or producing.	Judging outcomes Making judgements based on criteria and standards through checking and critiquing.
What the learner does	Learner recalls or recognizes information, ideas and principles in the approximate form in which they were learned.	Learner translates, comprehends, or interprets information based on prior learning.	Learner selects, transfers, and uses data and principles to complete a problem or task.	Learner distinguishes, classifies and relates the assumptions, hypotheses, evidence, or structure of a statement or question.	Learner originates, integrates, and combines ideas into a product, plan or proposal that is new to him or her.	Learner appraises, assesses, or critiques on a basis of specific standards and criteria.
The skills demonstrated at this level are those of	<ul style="list-style-type: none"> • observation and recall of information • knowledge of dates, events, places; • knowledge of major ideas • mastery of subject matter 	<ul style="list-style-type: none"> • understanding information; • grasping meaning • interpreting facts • comparing • contrasting 	<ul style="list-style-type: none"> • using information • using methods, concepts, theories in new situations • solving problems using required skills or knowledge • translating knowledge into a familiar context 	<ul style="list-style-type: none"> • seeing patterns • organization of parts • recognition of hidden meanings • identification of components • inferring causes • predicting • consequences 	<ul style="list-style-type: none"> • using old ideas to create new ones • generalising from given facts • relating knowledge from several areas • predicting, drawing conclusions • translating knowledge into a unfamiliar context 	<ul style="list-style-type: none"> • comparing and discriminating between ideas • assessing value of presentations • making choice based on reasoned argument • verifying value of evidence • recognising subjectivity

Sample trigger words	<ul style="list-style-type: none"> • collect • define • examine • identify • label • list • name • quote • repeat • tabulate • tell • what • when • where • who 	<ul style="list-style-type: none"> • compare • contrast • describe • differentiate • discuss • distinguish • estimate • explain • extend • illustrate • interpret • paraphrase • predict • summarize 	<ul style="list-style-type: none"> • apply • calculate • change • complete • compute • construct • demonstrate • discover • examine • illustrate • modify • relate • show • solve • use 	<ul style="list-style-type: none"> • analyse • arrange • categorize • classify • compare • connect • contrast • divide • extract • infer • order • select • separate 	<ul style="list-style-type: none"> • combine • compose • create • design • develop • formulate • hypothesize • integrate • modify • plan • prepare • rearrange • rewrite • substitute 	<ul style="list-style-type: none"> • argue • assess • conclude • convince • decide • discriminate • explain • judge • justify • measure • predict • rank • summarize • test
Theory Question Stems	<ul style="list-style-type: none"> • Choose the best description • Give appropriate term... • Identify • List • Name • Provide definitions • Select appropriate answer • State true or false • What • Will 	<ul style="list-style-type: none"> • Describe • Discuss the term • Explain 	<ul style="list-style-type: none"> • Advantages • Conclude • Disadvantages • Examples • Identify where • Identify • Motivate why • Suggest • Support the recommendation • Why 	<ul style="list-style-type: none"> • Argue • Compare • Determine • Discuss how • Discuss the importance of • Explain • Generate • Give/list tips 	<ul style="list-style-type: none"> • How could you tell ...? • Justify • Predict • Propose solutions • Provide reasons • Recommend • Suggest • Why is it important ...? 	
Practical Question Stems	<ul style="list-style-type: none"> • Rename • Move • Wrap the headings • Format • Resize • Insert a comment/column • Hide • Delete • Exclude 	<ul style="list-style-type: none"> • Adjust • Use the data • Show all the formulas • Replace the words • Activate protection • Merge • Split • Edit according to the editing symbol indicated • Print only 	<ul style="list-style-type: none"> • Insert/Apply a function or formula • Convert 	<ul style="list-style-type: none"> • Arrange the data • Construct a formula or function • Create a named range • Design a chart/graph • Import • Export • Generate a Lookup • Devise input • Plan a query • Group the report • Process a mail merge • Merge the form letter 		