basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL
SENIOR CERTIFICATE

GRADE 12

COMPUTER APPLICATIONS TECHNOLOGY P1

NOVEMBER 2016

MEMORANDUM/MARKING GUIDELINES

MARKS: 180

CENTRE NUMBER								

FINAL MARK	

EXAMINATION NUMBER												

QUESTION	1	2	3	4	5	6	7	TOTAL
POSSIBLE MARK	30	22	25	25	38	20	20	180
MARKER								
SM								
CM								
IM/EM								

This memorandum/marking guideline consists of 15 pages.

EXAMINATION NUMBER													

IGNORE SPELLING IN ALL CASES WHERE IT WOULD NOT HAVE ANY IMPACT ON THE ANSWER.

QUESTION 1   **File name: 1Metal**   **Total Q1: 30**

No	Criteria	Maximum Mark		Candidate Mark
1.1.1	**First page: 'Precious Metals'** • Font type changed to 'Verdana' ✓ • Strikethrough effect removed ✓	1 1	2	
1.1.2	**Picture** • First image flipped for text to read from left to right ✓	1	1	
1.1.3	**Picture** • Height and width set to exactly 5 cm x 5 cm *(or 4.57 x 5 or 5 x 5.47 if aspect ratio still checked)* ✓ • Aspect ratio unchecked *(if 5 cm x 5 cm allocate mark)* ✓	1 1	2	
1.1.4	**First page** • Cover page/some pages/all pages are vertically aligned as 'center' ✓	1	1	
1.2	**'Metal' style** • 'Coin' style changed to 'Metal' ✓	1	1	
1.3	**Table of contents** • Table of contents updated *(see heading 'Bullion')* ✓ • Four levels display *(see 'Annexure A' headings)* ✓	1 1	2	
1.4	**Hyperlink** • Hyperlink removed from the word 'nuggets' ✓ *(Note to marker: Do not award mark if the word 'nuggets' is deleted.)*	1	1	
1.5	**Table** • Row 2 merged ✓ and text centred ✓ • Palladium shape filled with 'Gold, Accent, Lighter 60%' or '80%' *(OR one shade lighter (blue or gold))* ✓ • Any column border changed to double line/thick border line ✓ • Formula field insert: =SUM(Above) ✓ • Formula formatted to display comma separator 000,000,000 **OR ###,###,### OR #,##**0 ✓ • Metals measured in tons sorted ✓ • In descending order ✓ according to number	2 1 1 1 1 1 1	8	

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1.6	**Index entries** **{XE "Precious Metals:silver"}** • 'silver' marked as a sub-entry for the marked index entry 'Precious Metals' ✓	1		1	
1.7	**Spelling of 'totaling'** • Spelling of the word 'totaling' corrected to 'totalling' ✓	1		1	
1.8	**Find and Replace: Word 'platinum'** • Replaced with symbol ✿ **OR** ☐ ✓ and letters 'Pt' *(OR 'pt' OR '☞ ♦')* ✓ • Symbol ✿, space AND 'Pt' correct ✓ • 7 occurrences of lowercase 'platinum' have been replaced ✓	1 1 1 1		4	
1.9	**Automatic numbering** • Automatic numbering (1., 2., 3.) applied to subheading 'A question of value investing' ✓ • 'Continue numbering' applied to the second sub-heading *(rest of numbering automatically adjusted)* ✓ • Number position set consistently against margin/to approximately 0 ✓ • Text indent of subheading set consistently (to approximately 1.25 cm) ✓ • Text alignment under one or more subheadings is justified ✓	1 1 1 1 1		5	
1.10	**Index** • Index updated *('commodity markets' appear in Index)* ✓	1		1	
	Total for QUESTION 1			**[30]**	

EXAMINATION NUMBER													

QUESTION 2   **File name: 2Pall**   **Total Q2: 22**

No	Criteria	Maximum Mark		Candidate Mark
2.1	**Page border/Watermark** • Any page border added to the document ✓ • **2PalMetal** ✓ image inserted as washout watermark ✓ • Scaling of watermark/picture is set to 150% ✓	1 1 1 1	4	
2.2	**Bookmark** • 'History of Palladium' linked to 'History' bookmark ✓ • Bookmark 'Applications' removed ✓ *(Note to marker: Do not award second mark if the text has been deleted.)*	1 1	2	
2.3	**Text box and callout shape** • Text box changed to any callout shape ✓ • Text in shape/text box reads from bottom to top ✓ • All text clearly visible ✓ • Position of shape/text box fixed to its position page ✓ *(Note to marker: 'Move object with text box' should be unchecked to allocate fourth mark.)*	1 1 1 1		
2.4	**Caption** • Caption label 'Picture' used *(do not accept typed text)* ✓ • Caption added with caption text ✓ ('Beautiful rings') • Caption placed above image ✓	1 1 1	3	
2.5	**Form controls** • Page break/Section break (Next page)/Page break before inserted before 'Quiz' ✓ • 'Full Name' text form field maximum length set to 12 ✓ • 'Full Name' text form field format set to 'First capital' ✓ • Any checkbox form field added ✓ • Any dropdown form field added ✓ • Option values set to Russia, South Africa, Ethiopia *(accept if only some options entered)* ✓	1 1 1 1 1 1	6	
2.6	**Table of figures (Use Alt + F9 to mark)** • Any automatic table of figures inserted ✓ • 'Simple' format used for table of figures ✓ *(sentence case, in bold)* • Page numbers don't display in table of figures ✓	1 1 1	3	
	Total for QUESTION 2		**[22]**	

EXAMINATION NUMBER												

QUESTION 3   **File name: 3Platinum**   **Total Q3: 25**

- *Mark the questions from the formulae and not the values/answers in the cell.*
- *Check against candidate's actual work (Cell references may differ, depending on the candidate's response).*
- *Candidate may use multiple formulae or cells as 'building blocks' to reach answers.*
- *Named ranges can be used instead of cell references.*
- *The answers must still be correct even if changes are made to the existing data.*

No	Criteria	Maximum Mark			Candidate Mark
Platinum/Sheet1 worksheet					
3.1	**Rename worksheet** • 'Sheet1' renamed to 'Platinum' ✓	1		1	
3.2	**Cells A1:E1:** • Cells A1:E1 merged ✓ • Font size is 16 ✓ • Any gradient fill added to cells A1:E1 *(not normal fill)* ✓	1 1 1		3	
3.3	**Cell E2:** • Comment removed from cell E2 ✓	1		1	
3.4	**Cell B6:** **=SUM(B3:B5)** *(accept only if a function was used)* ✓	1		1	
3.5	**Cell E3:** **=(D3-B3)/B3*100** • Correct cells: D3-B3 **OR** B3-D3 ✓ • Correct use of brackets ✓ • Division: /B3 **OR** D3 relative to 1st bullet ✓ • *100 ✓ *(accept formatting as a percentage instead)*	1 1 1 1		4	
3.6	**Conditional formatting: Cells B8:D11** • Conditional formatting applied to cells B8:D11 ✓ • Top/Bottom rule ✓ set to 40 ✓ % ✓ *(or values that rank in top 4)* • Any border applied ✓	1 3 1		5	

EXAMINATION NUMBER [   ]

3.7	**Chart/Graph**			5	
	• Data selection extended to cells A3:D5 **OR** A2:D5 ✔	1			
	• Data for 'South Africa' filled with **3Platinum** image ✔	1			
	• Any stacked effect applied ✔	1			
	• Legend moved to bottom ✔	1			
	• Vertical axis display years (2014, 2015 and 2016) ✔	1			

Qual_Kwal worksheet

| 3.8 | **Cell D10:** *(Check for building blocks)*
=LEFT(B1,TRUNC(B10/550))

OR
=LEFT(B1,INT(B10/550))

OR
=LEFT(B1,ROUNDDOWN(B10/550),0)

OR
=RIGHT(B1,TRUNC(B10/550))

OR
=MID(B1,1,(TRUNC(B10/550)))

OR
=IF(B10/550>=5,"***",IF(B10/550>=4,"****",**
IF(B10/550>=3,"*",IF(B10/550>=2,"**","*"))))**

• Function(s) used correctly ✔
• Used weight ✔ to determine the correct number of stars ✔
• Extract correct number of stars for all possibilities ✔
• Display stars for all possibilities ✔

(Notes to marker:
• *Accept any valid variation of the nested IF or LOOKUP functions. (Nested IF ✔, division/values ✔✔, conditions ✔, outcomes ✔)*
• *Check for building blocks.)* | 1
1
1
1
1 | | 5 | |
| | **Total for QUESTION 3** | | | **[25]** | |

EXAMINATION NUMBER													

QUESTION 4　　　　　**File name: 4Jewel_Juweel**　　　　　**Total Q4: 25**

- *Mark the questions from the formulae and not the values/answers in the cell.*
- *Check against candidate's actual work (Cell references may differ, depending on the candidate's response).*
- *Candidate may use multiple formulae or cells as 'building blocks' to reach answers.*
- *Named ranges can be used instead of cell references.*
- *The answers must still be correct even if changes are made to the existing data.*

No	Criteria	Maximum Mark			Candidate Mark
Jewel_Juweel worksheet					
4.1	**Row 3: Formatting** • Any text wrapped ✓		1	1	
4.2	**Cell A5:** **=CONCATENATE(MID(C5,2,3),B5)** **OR** **=MID(C5,2,3)&B5** • CONCATENATE function **OR** & ✓ • MID ✓ (C5,2,3) **OR** appropriate arguments ✓ • B5 ✓	1 2 1		4	
4.3	**Cell D5:** *(Check for building blocks)* **=VLOOKUP(C5,Qual_Kwal!$A$1:$E$6, RANDBETWEEN(1,4)+1)** **OR** **=VLOOKUP(C5,Qual_Kwal!$A$3:$E$6, RANDBETWEEN(1,4)+1)** **OR** **=VLOOKUP(C5,Qual_Kwal!$A$3:$E$6,(RAND()* 3+1)+1)** **OR** **=VLOOKUP(C5,Qual_Kwal!$A$1:$E$6, RANDBETWEEN(2,5))** • Lookup value: C5 ✓ • Table array: Qual_Kwal!A1:E6 **OR** Qual_Kwal!$A$1:$E$6 ✓ *(A3:E6 can also be used)* • Column index number **OR** RAND() **OR** RANDBETWEEN ✓ • Upper boundary (2) **OR** (1)+1✓ • Lower boundary (5) **OR** (4)+1✓	1 1 1 1 1		5	

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| 4.4 | **Cell F4:**
=IF(C4="Silver",IF(H4<>"","*",""),"")

OR
=IF(C4="Silver",IF(H4="","","*"),"")

OR
=IF(AND(C4="Silver",H4<>""),"*","")

OR
=IF(C4="Silver",IF(LEN(H4)>0,"*",""),"")

OR
=IF(AND(C4="Silver",H4>0),"*","")

• Criteria 1: Check that the precious metal is silver: C4="Silver" ✔
• Criteria 2: Check if a value appears in column H **OR** column I: H4<>"" ✔
• Correct output ("") if metal is not silver ✔
• Correct output ("") if metal is silver and no value appear in column H **OR** column I ✔
• Correct output ("*") if metal is silver and value appears in column H **OR** column I ✔
• Function copied to cells below *(any function)* ✔

(Notes to marker:
• *Accept any valid test for blank cell including COUNTBLANK(H4) and LEN(H4)=0.*
• *Accept any other correct test if the correct corresponding output is displayed.)* | 1

1
1

1

1

1 | 6 | |
| 4.5 | **Cell M6:**
=SUMIF(B4:B53,"*ring*",J4:J53)

OR
=SUMIF(B4:B53,"Ring",J4:J53)+SUMIF(B4:B53, "Earrings",J4:J53)

OR
=SUMIFS(J4:J53,B4:B53,"*ring*")

• SUMIF/SUMIFS function ✔
• Criteria range: B4:B53 ✔
• Criteria: "*ring*", **OR** "Ring" AND "Earrings" ✔
• Sum range: J4:J53 ✔ | 1
1
1
1 | 4 | |

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4.6	**Cell M7:** **=COUNTIF(C4:C53,"Gold")** • COUNTIF function ✓ • Range: C4:C53 ✓ • Criteria: "Gold" ✓	 1 1 1		3	
4.7	**Cell M8:** **=COUNTA(H4:H53)** **OR** **=COUNT(E4:E53)-COUNTBLANK(H4:H53)** **OR** **=COUNTA(B4:B53)-COUNTBLANK(H4:H53)** **OR** **=COUNTIF(H4:H53,"*")** • Correct function ✓ • Correct range *(accept column I)* ✓ *(Note to marker: If COUNTA(range)-COUNTBLANK(range) structure is used accept columns (B,C,D,E,G,J) as correct range for COUNTA and columns (H or I) as correct range for COUNTBLANK.)*	 1 1		2	
	Total for QUESTION 4			**[25]**	

EXAMINATION NUMBER													

QUESTION 5　　　　　　　**File name: 5Inves**　　　　　　　**Total Q5: 38**

No	Criteria	Maximum Mark			Candidate Mark
Table: tbJewellery					
5.1.1	**Field:** *Metal* • Field size set to 33 ✓	1		1	
5.1.2	**Field:** *Stones* • Format changed to Yes/No **OR** Lookup ✓	1		1	
5.1.3	**Field:** *Grams* • Required property set to Yes ✓ • Validation Rule: >10 ✓ and ✓ <=80 ✓ 　**OR** Between 11 and 80 • Appropriate validation text inserted that refers to correct range (more than 10 and less than or equal to 80) ✓	1 3 1		5	
5.1.4	**Field:** *JewelleryType* • 'Watch' option does not appear ✓ • 'Bangle' option appears ✓ • In second position ✓	1 1 1		3	
5.1.5	**Field:** *JewelleryId* • Input Mask: LLLA09 　　　　LLL ✓ 　　　　A ✓ 　　　　0 ✓ 　　　　9 ✓	1 1 1 1		4	
5.1.6	**Field:** *ValuationDate* Default value: DATE()+60 **OR** #2016-10-19# + 60 **OR** NOW()+60 **OR** #2016/12/18# • DATE() **OR** NOW() **OR** Actual date ✓ • + 60 ✓	 1 1		2	

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Form: frm5_2					
5.2	• Label added ✔ and examination number in form header ✔ • Combo box or list box added ✔ • Combo box values based on tb5_2 ✔ and bound/linked to *InvestmentTerm* field ✔ (Row Source: tb5_2 **OR** Select[tb5_2].[InvestmentTerm] FROM tb5_2 **OR** "Long"; "Medium"; "Short" **AND** Row Source Type: Table/Query **OR** Value List)	1 1 1 1 1		5	

Query: qry5_3					
5.3	• *InvestorCountry*: Total: Group By ✔ • Criteria: 'United States' ✔ *(or correct variations)* • *NumberOfCoins*: Total: Sum ✔	1 1 1		3	

Field: InvestorCountry | NoOfCoins
Table: tbInvestor | tbInvestor
Total: Group By | Sum
Sort:
Show: ☑ | ☑
Criteria: "United States"
or:

Query: qry5_4					
5.4	• Fields displayed: *InvestorName, InvestorSurname, InvestmentDate* and/or new field *(CheckMatch)* ✔ • Criteria *InvestmentDate*: >=#1975-01-01# ✔ **OR** >#1974-12-31# **AND** ✔ <=#1989-12-31# ✔ **OR** <#1990-01-01# **OR** Between #1975-01-01# AND #1989-12-31# **OR** Year([InvestmentDate]): Between 1975 and 1989 • Calculated field: CheckMatch: ✔ [InvestorCountry] ✔ = ✔ [InvestorOrigin] ✔ **OR** CheckMatch: IIF(✔) ([InvestorCountry]=[InvestorOrigin](✔✔),"True","False") *(Note to marker: 50 records expected.)*	1 1 1 1 1 3		8	

Report: rpt5_5					
5.5	• Grouping changed to *InvestmentTerm* field ✔ • Field *InvestmentTerm* appears in group header/footer ✔ • Function inserted in *InvestorCountry* group footer or group header ✔ • =COUNT ✔ ([*InvestorSurname*]) ✔ *or any other field* **OR** Count(*) • Suitable label *(must refer to number of investors)* ✔	1 1 1 2 1		6	

	Total for QUESTION 5			**[38]**	

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QUESTION 6   **File name: 6Rhodium**   **Total Q6: 20**

- *This question should be marked from the HTML code.*
- *Numerical attribute values do not need to be in inverted commas.*
- *A maximum of 1 mark will be deducted if one or more closing tags are omitted.*

No	Criteria	Maximum Mark			Candidate Mark
6.1	**Heading, alignment and font colour** * Rhodium Investment: The Rarest of Precious Metals * • 'Rhodium Investment: The Rarest of Precious Metals' appear as heading 1 ✓ • Alignment: center ✓ • Font colour: red ✓ *(Note to marker: Accept if font changes implemented with a paragraph tag.)*	1 1 1		3	
6.2	**Horizontal line** *<hr width="90%"/>* • Horizontal line added ✓ • Line width set to 90% ✓	1 1		2	
6.3	**Background image** *<body background="6Rh.jpg">* • *background="6Rh.jpg"* inserted correctly ✓ • In body tag ✓	1 1		2	
6.4	**Unordered list and line break** *<ul type="square">* * - Diesel catalytic converters * * * * - Non-diesel catalytic converters * * * • Bulleted list added ✓ • Bullet type: square ✓ • Line break added between bullets *(not paragraph)* ✓	1 1 1		3	

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6.5	**Image: height, width and border** *<img src="6RMine.jpg" **height="100" width="200" border="5"**>* • Height = 100 ✔ • Width = 200 ✔ • Border = 5 ✔	 1 1 1		3	
6.6	**Formatting: Bold and italics** ***<i>**South Africa**</i>** OR ***<i>**South Africa**</i>*** • Bold applied to 'South Africa' ✔ • Italics applied to 'South Africa' ✔	 1 1		2	
6.7	**Link** *<a **href**="www.ResourceInvestor.com">* ***www.ResourceInvestor.com*** • Link text 'www.ResourceInvestor.com' inserted **OR** 'http://www.ResourceInvestor.com' ✔ • Link 'href' added correctly ✔ *(Note to marker: The link will work correctly if the web browser opens and the address displays in the address bar. No Internet access is needed.)*	 1 1		2	

6.8	**Table: Cell spacing and colspan**
	*<table align="center" border="3" **cellspacing = "10"**>*
	 *<tr> <td **colspan ="3"**>Rhodium Prices</td></tr>*
	 <tr> <th>Metal</th>
	    <th>Year</th>
	    <th>Price</th></tr>
	 <tr> <td>Rhodium</td>
	    <td>2014</td>
	    <td>R1 235</td></tr>
	</table>
	
	• Cellspacing = 10 ✔
	• First row: colspan = 3 ✔ *(appears as a 'merged' cell)*
	• Text appears in the first row ('Rhodium Prices') ✔
		
		1
		1
		1
				3	

	Closing tag(s) or triangular brackets omitted	-1			
	Total for QUESTION 6			**[20]**	

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QUESTION 7   Total Q7: 20

File names: 7Data, 7DataImp, 7Gem_Edel, 7GemMerge, 7DOB, 7Answ_Antw

No	Criteria	Maximum Mark			Candidate Mark
7Data					
7.1.1	**Print Area** • Print area set ✓	1		1	
7.1.2	**Data validation: G2:G101** • Allow: Whole numbers ✓ • Data greater than or equal to 0 ✓	1 1		2	
7DataImp					
7.2	**Data imported** • All data (100 records) imported ✓ to Clients table in database • Column headings of worksheet used as field names ✓ • Table named as Clients ✓	1 1 1		3	
7Gem_Edel/7GemMerge					
7.3.1	**Track changes** • All track changes accepted ✓ *('Birthstone Chart appears as 16 pt and bold)*	1		1	
7.3.2	**Footnote** • Endnote converted to footnote ✓ *(Note to marker: No marks awarded if a footnote is added in addition to the existing endnote.)*	1		1	
7.3.3	**Paragraph spacing** • Spacing after set to 3 pt after ✓	1		1	
7.3.4	**Tab setting: <<Birthstone_GeboorteSteen>>** • Any leader tab set ✓ • To 8 cm ✓	1 1		2	
7.3.5	**Mail merge** • Text '<InvestorName_BeleggerNaam>' replaced with the field <<InvestorName_BeleggerNaam>> ✓ • Data source: Month criteria set to 10 ✓	1 1		2	
7GemMerge					
7.3.6	**Merge completed** • Mail merge completed ✓ *(see letters in 7GemMerge)*	1		1	

• *Accept any method that will yield the correct answer.*

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- *Allocate two marks for only the correct answer.*
- *If nothing appears in **7Answ_7Antw** or the answer is incorrect, check **7Coin_Munt** for the method/answer.*

<table>
<tr><td colspan="6">7Answ_Antw, 7Coin_Munt</td></tr>
<tr>
<td>7.4.1</td>
<td>How many investors bought coins in any dollar currency?
- 77 ✓

Method: ✓
- Filter on CoinFaceValue: Criteria: contains '$'
- OR Filter on CoinCurrency: Criteria: contains 'Dollar'
- =COUNTIF(M2:M101,"*Dollar*")
- Sort and count</td>
<td>1

1</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>7.4.2</td>
<td>How many long term investors have a start date in September?
- 3 ✓

Method: ✓
- Filter on InvestmentTerm: 'Long' AND Filter on StartDate: Dates in periods: 'September'
- OR add =MONTH(E2) in an extra column – in this case done in column P and use function =COUNTIFS(D2:D101,"Long",P2:P101,"9")</td>
<td>1

1</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>7.4.3</td>
<td>What is the name of the most popular occurring coin?
- Maple Leaf OR Eagle ✓

Method: ✓
- 7 COUNTIF/SUMIF for every coin name
  e.g.=COUNTIF(J2:J101,"Maple Leaf")
- First sort the data according to the coin name, and then use of the SUBTOTAL function to get a subtotal for each coin name
- Pivot table
- Use outline and get subtotal on *CoinName*</td>
<td>1

1</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total for QUESTION 7</td>
<td></td>
<td></td>
<td>[20]</td>
<td></td>
</tr>
<tr>
<td></td>
<td colspan="2" style="text-align:right">TOTAL</td>
<td></td>
<td>180</td>
<td></td>
</tr>
</table>