

Tutorial letter 103/2/2014

Practical Accounting Data Processing AIN2601

Semester 2

Department of Management Accounting

IMPORTANT INFORMATION:

This tutorial letter contains important information
about your module.

BAR CODE

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1 INTRODUCTION

Dear Student

This will be the last tutorial letter for AIN2601 for this semester. This tutorial letter contains information about the examination.

Ongoing communication with us, the lecturers, has proven to be highly effective in improving areas where students previously experienced problems. You can contact us by means of telephonic conversation, e-mail correspondence or by making an appointment to see us in person.

Please note that the final examination date will be confirmed by the examination department. Please do not contact the lecturers in this regard as we are not involved in scheduling examination dates.

Enjoy your studies and the best of luck with your examination!

Remember the words of Vince Lombardi: *"The price of success is hard work, dedication to the job at hand, and the determination that whether we win or lose, we have applied the best of ourselves to the task at hand."*

Kind regards

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2 EXAMINATION - GENERAL

The examination paper for AIN2601 has a time limit of two hours.

The examination for AIN2601 will be a written paper. There are not enough computers available at the examination centres to test Pastel and Microsoft Excel practically on a computer. You will, however, be asked questions on those topics and be required to write down the answers.

Please start early with your examination preparations to avoid "cramming" at the last moment.

Ensure that you bring a non-programmable calculator to the examination as you will be required to perform basic calculations.

3 CALCULATION OF FINAL MARK

The marks earned for your assignments will contribute towards your year mark as follow:

Assignment number	Maximum contribution towards year mark
Assignment 01	8%
Assignment 02	80%
Assignment 03	12%
Year mark	<u>100%</u>

For example: If you earn 100% for the assignment 01; 78% for assignment 02 and 80% for assignment 03 your year mark will be 80% $[(100\% \times 8\%) + (78\% \times 80\%) + (80\% \times 12\%) = 80\%]$.

The mark you earn in the examination will count 75% and your year mark will count a maximum of 25% towards your final mark. A final mark (examination mark and year mark together) of 50% is required to pass AIN2601.

Year mark:	25%
Examination mark:	75%
Final mark:	<u>100%</u>

For example: If you earn 60% for the examination and have 80% for your year mark (assignment 01, 02 and 03) your final mark will be 65% $[(60\% \times 75\%) + (80\% \times 25\%) = 65\%]$.

A sub-minimum of 40% in the examination is required. Your year mark will not count in the case where you did not obtain the sub-minimum of 40% in the examination.

For example: If you earn 37% for the examination and have 80% for your year mark (assignment 01, 02 and 03) your final mark will be 37%.

A supplementary examination may be awarded at the discretion of Unisa and is based on the final mark obtained.

4 FORMAT OF THE EXAMINATION PAPER

The format of the examination paper will be as follows:

QUESTION TYPE	MARKS
Multiple choice questions	8
Fill in the missing word questions	8
Longer questions from study guide 1 and 2 and the Pastel Training Manual.	84
<i>TOTAL</i>	100

Addendum A contains a previous AIN2601 examination paper and memorandum. This examination paper is a good indication of the format of the examination paper. Refer to paragraph 6.4 for more information about previous examination papers.

Note the use of the case study questions. The required portion of each question will be preceded by a short case study. This case study will place the questions into context and will also make it more practical. Your examination will also have case study questions.

Take note: There are NO OLD QUESTIONS from previous DPA202T or AIN2601 examinations in this examination paper. All the questions for this examination are new questions!

5 CONTENT OF THE EXAMINATION PAPER

The percentage of marks from each of the themes in your study guide will be more or less as follows:

Part 1 and 4	<ul style="list-style-type: none"> • Data management and utilisation • Management reporting systems 	± 34%
Part 2	Spreadsheets	± 33%
Part 3	Transaction processing	± 33%
<i>TOTAL</i>		100%

6 STUDY GUIDANCE

6.1 Theory

You must know all the theory in study guide 1 of 2 and study guide 2 of 2. Please study the information in detail. You must also be able to do basic accounting - refer back to your first year accounting if you struggle with this.

6.2 Pastel Partner (Topic 6)

You must have Pastel installed and working on your computer. The only way to get to know Pastel is to practice it by working through the Pastel training manual, topic 6 in study guide 2 and completing assignment 02. Remember, you must understand why you are doing something and what the impact of these actions/selections is and not just how to perform a task. Pastel will also help you to understand topic 3, which deals with accounting cycles. Please refer to the comments and feedback included in Tutorial Letter 202 as part of your exam preparation.

6.3 Spreadsheets (Topic 2)

You must have Excel or OpenOffice Calc installed and working on a computer or at least have access to a computer with it installed. Practice your Excel formulas and functions on a computer.

You must work through study guide 1, topic 2 (on the computer) and make sure you are able to write down certain functions and apply all the functions and formulas to the data given in the examination. The examination will cover all the functions and formulas in topic 2 and **not** just SUM, MIN, MAX and AVERAGE. You are required to know the format of certain functions off by heart, while other functions will be given to you in the examination. Please refer to the comments and feedback included in Tutorial Letter 202 as part of your exam preparation.

The table below indicates which functions' structures you need to know off by heart and which functions' structures will be given to you:

You need to know these functions' structures off by heart	The structure of these functions will be given to you
Combining text and values with &	PMT
SUM	FV
ROUND	PV
AVERAGE	VLOOKUP
MAX	
MIN	
IF	
LEFT	
MID	
RIGHT	

We would like to stress the fact that you will be expected to know Excel for the examination and that we will not accept answers from other software packages.

It is also VERY important that you know the following principles and are able to apply it to the case study information given:

- Signs/operators
- Order of operations
- Changing the sign of an amount
- Percentages
- VAT, Gross profit percentages and mark-up
- Relative references
- Absolute references
- Reference operators

6.4 Previous examination papers

The module code has changed from DPA202T to AIN2601 in 2013 and you will therefore still find previous DPA202T examination papers on myUnisa. Please note that the syllabus has changed between the two modules; however the Pastel and Excel parts remained mostly the same and you can still work through the Pastel and Excel questions in previous DPA202T examination papers.

Working through previous examination question papers will help you sharpen your skills and will give you an idea of the format of the exam paper. We however strongly advise you, not to focus on previous examination papers only, as there are no old questions in the examination.

Previous examination papers solutions are not distributed apart from the solution in Addendum A. You can however send your answers to us, your lecturers. We will mark your answers and send it back to you with comments. This will help you to see where you go wrong or where you do not understand a certain concept. Please note that the only way for you to obtain the answers to the previous examination papers is to send us your suggested solution.

You can download previous DPA202T examination papers from *myUnisa/Additional resources/Previous exam papers* - the files are named "*Old question papers*". Previous AIN2601 examination papers can be downloaded from *myUnisa/Official studymaterial*.

7 ASSIGNMENT MARK QUERIES

7.1 Assignment 01 and 03 queries

Enquiries about assignment 01 and assignment 03 must be referred to the **Assignment Section** via sms - 43584 or e-mail - assign@unisa.ac.za.

7.2 Assignment 02 queries

Enquiries about assignment 02 marks must be directed to the **AIN2601 lecturers** by sending an e-mail to AIN2601-14-S2@unisa.ac.za. All assignment 02 queries must reach us before the AIN2601 examination date. Please state the following in your e-mail:

- Your student number
- Method of submission i.e. myUnisa or post
- The specific reason for your enquiry
- The specific tasks where you don't agree with the mark allocation. (You must compare your assignment to the solution provided in TL202/2014 before you send your query.)

NB: No assignment-related queries including assignment mark adjustments will be accepted AFTER the AIN2601 examination date.

POSTAL SUBMISSIONS:

DO NOT wait to receive back your assignment before querying your mark. Once you have received your mark, compare a photocopied copy of your assignment (refer to TL/101/2014 par 7.3.4.2) to the solution in TL202/2014 and contact your lecturers if need be.

General reasons why students receive 0% for assignment 02 are the following:

- The assignment was submitted after the due date (refer to TL101/2014 par 7.3.6)
- The assignment contravened the declaration as set out in TL101/2014 Addendum E. Please note that the contravention of the declaration is a very serious offence and we may at our discretion take further steps against such students.
- The assignment was submitted in an incorrect format for example a Pastel backup was submitted instead of the required printed documents. It is therefore very important that you read TL101/2014 par 7.3.4 carefully.

ADDENDUM A: PREVIOUS EXAMINATION QUESTION PAPER AND MEMORANDUM

AIN2601 MAY/JUNE 2013 EXAMINATION PAPER

QUESTION 1 (7 marks)

WRITE THE CORRECT ANSWER (A, B, C OR D) IN YOUR ANSWER BOOK NEXT TO THE RELEVANT QUESTION NUMBER. EACH CORRECT ANSWER COUNTS ONE (1) MARK.

- 1.1 The database architecture has different levels. The level with a complete view of the entire/whole database (of which there is only one such view) is known as the _____ level.
- (A) user
 - (B) internal
 - (C) external
 - (D) conceptual
- 1.2 The current year to date sales for each of the organisation's customers will be contained in the _____ database file.
- (A) customer transaction
 - (B) customer master
 - (C) customer reference
 - (D) customer history
- 1.3 Where a spreadsheet is used for a period longer than a year the potential risk for errors _____.
- (A) increases.
 - (B) decreases.
 - (C) stays the same.
 - (D) does not exist.

QUESTION 1 (continued)

- 1.4 Which database management system (DBMS) database language is used to create a database?
- (A) Data definition language.
 - (B) Data creation language.
 - (C) Data manipulation language.
 - (D) Data control language.
- 1.5 When processing a sales transaction the total value of the transaction will be calculated by using the VAT % per tax type which can be found in the _____ database file.
- (A) VAT transaction
 - (B) VAT master
 - (C) VAT reference
 - (D) VAT history
- 1.6 Which one of the following statements is **not** an aspect to consider when buying an accounting information system off the shelf?
- (A) The support and training available for the software.
 - (B) The technical knowledge of the organisation's IT staff.
 - (C) The reliability of the software vendor.
 - (D) The matching of the organisation's requirements with the software features.
- 1.7 RSA Education Pty Ltd financial year starts on the 1st of September each year and there are always 12 periods (months) in the financial year. Their accounting team are processing transactions in Pastel Partner for the August 2013 financial year. A journal dated 8 December 2012 must be processed in which financial period?
- (A) Period 12 of the previous financial year.
 - (B) Period 4 of the previous financial year.
 - (C) Period 12 of the current financial year.
 - (D) Period 4 of the current financial year.

[7]

QUESTION 2 (9 marks)

COMPLETE THE FOLLOWING STATEMENTS BY INSERTING THE CORRECT WORD(S). WRITE DOWN THE QUESTION NUMBER AND THE CORRECT WORD(S) ONLY. EACH CORRECT ANSWER COUNTS ONE (1) MARK.

- 2.1 In the production cycle the _____ contains (specifies) the quantities of raw materials needed to manufacture finished goods products.
- 2.2 A(n) _____ database is split into smaller portions/segments and the part applicable to the user is made available on the location closest to the user.
- 2.3 The return of inventory items from the organisation to a supplier will decrease both the inventory quantity on hand and the inventory quantity _____.
- 2.4 The return of inventory items from a customer to the organisation will be recorded by the organisation on a(n) _____ source document.
- 2.5 When creating a new company in a transaction processing system the second step in the process is to _____. This step includes, for example, the integration of inventory to the general ledger.
- 2.6 Software used to look for hidden or unknown patterns in data is called _____ software.
- 2.7 A(n) _____ is a database containing current and historic (previous years) data which has been extracted from the organisation's other databases.
- 2.8 In a relational database the set of logically related data fields about a single member of item i.e. a row in a database file is known as a(n) _____.
- 2.9 The processing method whereby data is arranged into different categories using some of the data's specific characteristics is known as _____.

[9]

QUESTION 3 (18 marks)

FreshJobs Pty Ltd is a consulting company that deals with placing graduates from different universities into various industries. FreshJobs provides consulting services in both the public and private sectors. FreshJobs recruits graduates around Gauteng region, trains them to be work ready and then places them in different companies. FreshJobs charges a fee to the companies hiring these graduates.

FreshJobs currently keeps all the data of the graduates trained by them on spreadsheets. These spreadsheets are password protected. FreshJobs entered into an agreement with the National Treasury whereby FreshJobs has to develop a database of all the trained graduates.

The database should include personal details of the student (first names and surnames), student's identity number (ID number), contact information of the student, municipality they are registered in, the name of the university they studied at, the industry they are working in, degree they completed, duration of their tertiary studies and keep record as to the progress of their career after being placed.

Data will be collected and entered into the database at the end of each week. The master file will be updated at the end of the month with the weekly transactions. FreshJobs and the National Treasury users will connect directly to the database and users must be able to request information themselves.

Required:

Refer to the **case study information** above and answer the following questions:

- 3.1 List four (4) steps that must be followed by spreadsheet users as it is seen as good password protection practice. (4)
- 3.2 Draw the table below in your answer book and use the table format to answer this question. Identify the specific data **input** (3.2.1), **processing** (3.2.2) and **output** (3.2.3) type that FreshJobs will use and give a reason for each of your answers. (6)

Type	Reason
3.2.1 <i>Input:</i>	
3.2.2 <i>Processing:</i>	
3.2.3 <i>Output:</i>	

- 3.3. Define the term primary data field. (1)
- 3.4 Identify, from the information that should be included by FreshJobs in the database, what data is most appropriate to use as the primary data field. (1)
- 3.5 List three (3) responsibilities/functions of a database administrator. (3)
- 3.6 Briefly describe the following database models/structures:
- 3.6.1 Object-oriented (1)
- 3.6.2 Multidimensional (1)
- 3.6.3 Relational (1)

[18]

QUESTION 4 (23 marks)

The Tent Shop is a business that sells and repairs tents and camping accessories. They started using Pastel to record their business transactions on the first day of the current financial year, after being in operation for two years. They are a registered VAT vendor and the current VAT rate is 14%.

[Screen printed from Pastel Partner Version 11]

Required:


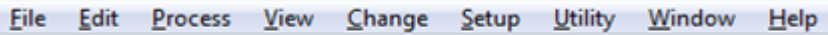



- 4.1 Which Pastel main menu will you use for the following procedures?
 - 4.1.1 Capture cash receipts (1)
 - 4.1.2 Modify inventory integration settings (1)
 - 4.1.3 Update a specific customer account's credit limit (1)
 - 4.1.4 Modify customer accounts from open item to balance forward processing (1)
 - 4.1.5 Make a backup (1)
- 4.2 Refer to the Pastel Partner screen print above. The "Dealer" price list is the price list for the above customer of The Tent Shop. What is the maximum number of different price lists you can have in Pastel Partner? (1)
- 4.3 What is the maximum number of customer categories that you can create in Pastel Partner? (1)

QUESTION 4 (continued)

- 4.4 Refer to the Pastel Partner screen print on the previous page. Match column B to column A. Write the question numbers in your answer book and then write **only** the corresponding letter next to the number (do not rewrite column B).

For example: 4.4.1 = Z

4.4.2 = Y ...

Column A	
4.4.1	The function of the  icon.
4.4.2	This is called the 
4.4.3	The function of the  icon.
4.4.4	The function of the  icon.
4.4.5	The function of the  icon.

Column B	
A	Tool bar.
B	Prevent a customer account from being used in future, but without deleting past references to this customer account.
C	Search according to customer account code.
D	Close the edit customer account function.
E	Menu bar.
F	Primary field of the customer master file.
G	Block all past, current and future references to a customer account.
H	Cancel the changes to the customer account.
I	Go to last record.
J	Go to next record.
K	Delete the customer account.
L	Search according to customer account description.
M	Add a new customer account

(5)

- 4.5 Refer to the Pastel Partner screen print on the previous page. A new customer, 4x4 Adventures, is created based on the default information (as shown on the Pastel Partner screen print). 4x4 Adventures purchases two (2) dome tents on 15 January 2013 on credit. The dealer price is R800 excluding 14% VAT per dome tent. 4x4 Adventures pays for the purchase on 18 January 2013 in full. Calculate the net value of the sales invoice **and** then calculate the amount 4x4 Adventures has to pay when settling its account in full. Show the detail of your calculations as part of your answer. (6)

QUESTION 4 (continued)

4.6 Since The Tent Shop only started using Pastel Partner on the first day of the current financial year after being in operation for two years already, they had to carry over the closing balances of the previous financial year to become the opening balances of the current financial year. Please answer the questions below which relate to the take on of opening balances:

4.6.1. Refer to the Pastel Partner screen print below. Why is a suspense account (9990/001 or 9990/005) used as the *Account* when processing the Bank balance in the general journal, instead of the bank account (e.g. 8400/000) during the take on of the opening trial balance? (2)

	Per	Date	Account	Reference	Description	Debit	Credit	Project	Contra Account
1	12-1	31/12/12	9990/001	OPENING	Take On Balance	R1,500,000.00			9990/001

4.6.2. Refer to the Pastel Partner screen print below. On the Process Cash Book screen, why is account 8400/000 used as the *Account* when taking on the opening bank reconciliation's outstanding cheque? (2)

	Date	GCS	Account	R	Reference	Description	Bank Amount	Foreign Supplier	Discount	Exchange Rate	Project
1	31/12/12	G	8400/000	N	CH001	Tshwane Municipality	R4,504.32				

- 4.6.3. Refer to the Pastel Partner screen print below. For the Cash Book Settings, why is the tax processing option deselected when taking on the opening bank reconciliation's reconciling items?

(1)

The screenshot shows the 'Cash Book Settings' window in Pastel Partner. At the top, the 'Contra Account' is set to '8400/000' and 'National Bank'. A 'Close' button is in the top right. The 'Processing' section contains several checkboxes: 'This Year Transactions' (deselected), 'Repeat Descriptions' (selected), 'Repeat Projects' (deselected), 'Allocate Settlement Discount' (deselected), 'Multi-Currency' (selected), and 'Invoke Open Item' (selected). The 'Increment References' section has three radio buttons: 'Yes' (selected), 'No' (deselected), and 'Once' (deselected). The 'Tax' section at the bottom has a 'Tax Processing' checkbox that is deselected, a 'Default Tax Type' dropdown menu showing '00 - Tax type 0', and a 'Default Entry Method' section with 'Exclusive' (deselected) and 'Inclusive' (selected) radio buttons.

[23]

QUESTION 5 (10 marks)

The Tent Shop is a business that sells and repairs tents and camping accessories. They use Pastel to record their business transactions. They are a registered VAT vendor and the current VAT rate is 14%.

The delivery notes of The Tent Shop are signed by the customers when the inventory items are delivered to them. The sales clerk of The Tent Shop then converts the delivery note into a sales invoice on Pastel by linking the two documents, where after the sales invoice is printed and then sent to the customer.

The Tent Shop sold and delivered five (5) hiking tents of R400 each, excluding VAT, to Hikers Mania on credit. The cost price of a hiking tent for The Tent Shop is R300 each, excluding VAT.

Required:

- 5.1 Draw the table below in your answer book. Now use this table to write the accounting entries into the general ledger master file for the customer's invoice captured onto Pastel by the sales clerk of The Tent Shop. **Note:** you need to show **all** applicable accounting entries relating to the sale. (10)

General ledger <u>account description</u>	Debit/Credit	Amount

Tip: draw the T-accounts for yourself as rough work in your answer book to help ensure your debits and credits are correct.

THE FOLLOWING IS APPLICABLE TO QUESTION 6

~Please leave a line open after each individual question.

~You used the Excel Help function to obtain the following formula structures which might come in handy when answering question 6:

- =VLOOKUP(lookup_value,table_array,col_index_num,range_lookup)
- =PMT(rate,nper,pv,fv,type)
- =FV(rate,nper,pmt,pv,type)
- =PV(rate,nper,pmt,fv,type)

QUESTION 6 (33 marks)

Carol is a grade 12 learner. Her school launched an entrepreneurial competition where learners are to start a small business to be evaluated after six months. The learners received basic VAT training and they are required to apply these VAT principles pretending they were in a real life business scenario.

Carol decided to enter the competition by starting Carol's Candy Corner (CCC), selling chocolates, candy floss, cold drink and chips. She is buying all her stock from her uncle who owns a wholesale retail store.

Her uncle promised to help her save money to be able to expand her business in the near future.

She gave you the following information:

- The Value Added Tax (VAT) percentage is 14%.
- CCC is a registered VAT vendor.
- The mark-up margin is 15%, which means the gross profit is calculated as 15% of cost of sales.
- Her uncle promised to help her save by setting a "Saving benchmark" at R3,000.00:
 - He will invest an initial amount of 50% of the gross profit (excluding VAT) in the instance where the gross profit (excl VAT) exceeds R3,000.00 for January 2013.
 - He will invest an initial amount of 30% of the gross profit (excluding VAT) in the instance where the gross profit (excl VAT) is R3,000.00 or less for January 2013.
- Carol is very happy about the initial amount her uncle will invest for her, but she would also like to make a monthly contribution to this initial investment as referred to in d). She is however uncertain how much to contribute monthly to arrive at her savings goal of R10,000.00 at the end of the savings term.
 - She wants her savings to be worth R10,000.00 after five years.
 - Her investment earns interest at a compound annual interest rate of 5%.
 - Her monthly contribution will be made at the end of each month
- A list of barcodes and units sold for every product for January 2013.

QUESTION 6 (continued)

- All the various types of products are marked with a barcode by her uncle in his store. He showed her how to read the barcode to determine the cost price of the products. The cost price including VAT per unit is hidden in the barcode.

The **barcode structure** is as follows:

1	2	3	4	5
x	x	y	z	z

Characters 1-2: Random letters

Character 3: Cost price including VAT per unit

Character 4-5: Random letters

- For stock counting purposes, Carol designed a unique product code for all the various types of products.

The **product code structure** is as follows:

1	2	3	4	5	6	7	8	9	10	11
C	C	C	1	2	3	x	x	x	x	x

Characters 1-3: CCC (This is the business code as per cell B3).

Characters 4-6: 123 (These three characters will always be 123).

Characters 7-11: The barcode in row 11.

- The number of units sold per barcode.

You are Carol's cousin and you are already studying. You offered your Excel skills to help her win this competition.

QUESTION 6 (continued)

You created the spreadsheet below:

	A	B	C	D	E
1	CAROL'S CANDY CORNER				
2	January 2013				
3	Business code	CCC		Number of units sold	
4	Markup-margin	15%		CA2SS	240
5	VAT percentage	14%		CH4PS	450
6	"Saving benchmark"	R3,000		CH6TE	360
7	More than R3,000 gross profit	50%		CO3NK	800
8	R3,000 or less gross profit	30%			
9					
10	Product name	CHOCOLATE	CHIPS	COLD DRINK	CANDY FLOSS
11	Barcode	CH6TE	CH4PS	CO3NK	CA2SS
12	Product code	CCC123CH6TE	CCC123CH4PS	CCC123CO3NK	CCC123CA2SS
13	Cost price <u>per unit incl VAT</u>	6	4	3	2
14	Selling price <u>per unit incl VAT</u>	R 6.90	R 4.60	R 3.45	R 2.30
15	Units sold	360	450	800	240
16	Total Gross profit <u>incl VAT per product</u>	R 324.00	R 270.00	R 360.00	R 72.00
17	Total Gross profit <u>excl VAT per product</u>	R 284.21	R 236.84	R 315.79	R 63.16
18					
19	Total gross profit <u>excl VAT for all products</u>	R 900.00			
20					
21	Initial amount	R 270.00			
22					
23	Interest rate (annual)	5%			
24	Term (years)	5			
25					
26	Required monthly contribution	R 152.14			

QUESTION 6 (continued)**Required:**

Use all the given information and answer the following questions with regards to the provided spreadsheet:

Note: Where it is indicated that your formula will be copied to other cells, your formula must take absolute and relative addresses into account, but only where necessary!

- 6.1 Which spreadsheet formula was entered into cell B12 to determine the product code for chocolate? **Note: Your formula will be copied to cells C12:E12.** (3)
- 6.2 Which spreadsheet formula was entered into cell B13 to extract the cost price including VAT per unit for a chocolate from the barcode in cell B11? **Note: Your formula will be copied to cells C13:E13.** (3)
- 6.3 Which spreadsheet formula was entered into cell B14 to calculate the selling price including VAT per unit for a chocolate? **Note: Your formula will be copied to cells C14:E14.** (3)
- 6.4 Which spreadsheet formula was entered into cell B15 to obtain the number of chocolate units sold in January 2013 from the information in cells D4:E7? **Note: Your formula will be copied to cells C15:E15.** (4)
- 6.5 Which spreadsheet formula was entered into cell B16 to calculate the total gross profit including VAT generated by chocolates? **Note: Your formula will be copied to cells C16:E16.** (2)
- 6.6 Which spreadsheet formula was entered into cell B17 to calculate the total gross profit excluding VAT generated by chocolates? **Note: Your formula will be copied to cells C17:E17.** (3)
- 6.7 Which spreadsheet formula was entered into cell B19 to calculate the total gross profit excluding VAT on all products? Your formula should round the answer to two decimal digits. (3)
- 6.8 Which spreadsheet formula was entered into cell B21 to determine the initial amount her uncle will invest on Carol's behalf? (4)
- 6.9 Which spreadsheet formula was entered into cell B26 to determine the required monthly contribution Carol will need to make to reach her savings goal? The formula should return a positive answer. (5)
- 6.10 Carol was very concerned when she encountered a number of errors. She asked you to explain to her what it means in order for her to correct it. Draw the table below in your answer book. Now use this table to explain the meaning of each error.

Error	Explanation
#N/A!	6.10.1 (1)
#NAME?	6.10.2 (1)
#VALUE!	6.10.3 (1)

[33]**Total [100]**

MEMORANDUM

In this memorandum the mark allocation is indicated as follow:

✓ = 1 Mark

^ = ½ Mark

Please do not use the abovementioned symbols in your examination answers.

QUESTION 1 (7 marks)

- 1.1. D SG 1, study unit 2 , par 5.2
- 1.2. B SG 1, study unit 2, par 6.3
 SG 2, study unit 8, par 2.4
- 1.3. A SG 1, study unit 6, par 3
- 1.4. A SG 1, study unit 2, par 5.3
- 1.5. C SG 2, study unit 8, par 2.4
- 1.6. B SG 2, study unit 14, par 3.2
- 1.7. D SG 2, study unit 15, par 5.5

QUESTION 2 (9 marks)

- 2.1. bill of materials/ BOM SG 2, study unit 10, par 3.2
- 2.2. partitioned SG 1, study unit 2, par 6.2
- 2.3. available SG 2, study unit 9, par 3
- 2.4. credit note SG 2, study unit 8, par 3
- 2.5. set up/create common defaults SG 2, study unit 7, par 5
- 2.6. data mining SG 1, study unit 3, par 5
- 2.7. data warehouse SG 1, study unit 4, par 3
- 2.8. data record *or* tuple SG 1, study unit 2, par 6.3
- 2.9. classifying (data) SG 1, study unit 1, par 4.1

QUESTION 3 (18 marks)

3.1 Any 4

- Don't share the password with anyone ✓
- Don't write the password down and place it where people can find it ✓
- Don't use obvious password that can easily be guessed like birthdays or names ✓
- Make use of a combination of letters and numbers ✓
- Include uppercase and lowercase letters, numbers, and symbols in the password
- Use numbers to represent letters for instance, 3 for an E and 1 for an i ✓
- Passwords should be 8 or more characters in length ✓
- Change passwords regularly if needed ✓

(4 maximum)

SG 1, study unit 6, par 3

3.2

Type	Reason (The reason must be applicable to the case study information)
Input: (3.2.1) Batch ✓	Data is collected and captured into the database weekly ✓
Processing: (3.2.2) Batch ✓	The transaction file is updated to the masterfile at the end of the month ✓
Output: (3.2.3) Interactive ✓	Users will connected directly to the database ✓ and users must be able to request information themselves ✓ (1 maximum)

(6)

SG 1, study unit1, par 3-5

3.3 Is a unique data field ^ that can be used to uniquely identify each data record ^

(1)

SG 1, study unit1, par 6.3

3.4 Identification number (ID number) ✓

(1)

QUESTION 3 (continue)

3.5 Any 3

- Implement and maintain database management standards and conventions. ✓
- Ensure applications software complies to database management standards and conventions by establishing programming standards. ✓
- Define the database structures. ✓
- Design and create databases in line with database management standards and conventions ✓
- Implement, maintain and evaluate database access policies and security controls. ✓
- Monitor data and database security and access. ✓
- Monitor and maintain database performance ✓

(3 maximum)

SG 1, study unit 2, par 4.3

3.6.1 Object-oriented model

In an object-oriented model, the data and the operations to be performed on the data are both stored in the database ✓ This database model can furthermore store and process a wider range of data types than only text and numerical data ✓ it also stores and processes images, audio and video data^.

(1 maximum)

SG 1, study unit 2, par.6.1

3.6.2 Multidimensional model

A multidimensional model is similar to a relational model, but whereas a relational model stores data in a two-dimensional table, a multidimensional model stores data in a three- or more dimensional table ✓ creating a cube-like data structure ✓

(1 maximum)

SG 1, study unit 2, par.6.1

3.6.3 Relational model

In a relational model, data is stored in two-dimensional rows and columns ✓ (i.e. tables).

(1)

SG 1, study unit 2, par.6.1

QUESTION 4 (23 marks)

- 4.1.1 Process menu ✓
 4.1.2 Setup menu ✓
 4.1.3 Edit menu ✓
 4.1.4 Change menu ✓
 4.1.5 File menu ✓ (5)

- 4.2 Pastel Partner allows up to ten **(10)** price lists. (1)
 [Pastel manual – 2012 – Lesson 4, page 39]

- 4.3 You can create up to **99** customer categories. (1)
 [Pastel manual – 2012 – Lesson 5, page 2]

- 4.4.1 M ✓
 4.4.2 E ✓
 4.4.3 D ✓
 4.4.4 I ✓
 4.4.5 C ✓ (5)
 [Pastel manual – 2012 – Lesson 2, page 12]
 [Pastel manual – 2012 – Lesson 2, page 23]

- 4.5 **Net value of sales invoice:**

$$\overset{\checkmark}{\text{R800.00}} \text{ (price)} \times \overset{\checkmark}{2} \text{ (quantity)} \times \overset{\checkmark}{1.14} \text{ (VAT)} \times \overset{\checkmark}{0.95} \text{ (invoice discount 5\%)} = \overset{\checkmark}{\text{R1,732.80}}$$

(4 maximum)

Amount to be paid for full settlement of account:

$$\text{R1,732.80 (net sales invoice)} \times \overset{\checkmark}{0.90} \text{ (10\% early payment discount)} = \overset{\checkmark}{\text{R1,559.52}}$$

(2)

QUESTION 4 (continue)

- 4.6.1 The bank opening balance must be captured in the cashbook against the suspense account 9990/001 to ensure the opening balance reflects on the bank reconciliation ✓ and clear the take-on suspense ^

Pastel only allows us to see transactions entered via the cash book on the bank reconciliation✓. If we were to use the bank account 8400/000 the trial balance would balance, but we will not be able to do a bank reconciliation for the cash book✓.

(2 maximum)

(SG 2, study unit 18, par 2.4)

- 4.6.2 The reconciling items were already processed in the previous financial year and are therefore already included in the take-on opening balance✓. These cheques and receipts (outstanding items) must be visible when doing the bank reconciliation but without affecting the opening bank/cash book balance ✓. We need to debit everything that we credit, so that there is no impact on the balance✓ (or We therefore use the 8400/000 account for both the debit and credit entry so that there is no impact on the take-on opening balance✓). We will have to do this debit and credit through the cash book so that it is visible on the bank reconciliation ^.

(2 maximum)

(SG 2, study unit 18, par 2.4)

- 4.6.3 The VAT implications have already been taken into account when the transaction occurred ✓ or VAT implications have already been taken into in the take on opening balance✓.

(1 maximum)

[23]

QUESTION 5 (10 marks)

5.1 (Note: The net effect (dt/ct and amount) is marked if an account was used more than once)

General ledger <u>account description</u>	Debit/ Credit	Amount
Sales revenue ^	Credit ^	R 2,000 ✓ 5xR400=
Vat / Tax Control Account ^	Credit ^	R 280 ✓ 5x(R400x0.14)=
Customer control / Accounts receivable/ Trades receivables/Debtors/Hikers Mania ^	Debit ^	R 2,280 ✓ 5x(R400x1.14)=
Cost of sales ^	Debit ^	R 1,500 ✓ 5xR300=
Inventory ^	Credit ^	R 1,500 ✓ 5xR300=

[10]

(SG2, study unit 8, par 3)

QUESTION 6 (33 marks)

The following is applicable to the Excel question.

- Functions are marked from left to right.
- The first option is marked where more than one answer for a specific question is given i.e. XXXX or YYYY.
- Where a formula/function is 'build-up' the final answer is marked i.e. amounts → cell reference → cell reference with \$
- To earn the applicable mark the cell references (taking the \$ into account where applicable) must be exactly the same as indicated on the memorandum.
- If information is given in a cell the answer must refer to that specific cell. E.g. VAT given in a cell – the formula cannot use 14% but must refer to that specific cell reference.

Marks are deducted as follows (per individual question):

(Note: A specific question cannot be awarded less than 0 for a formula.)

Not starting a formula/function with =	-1
Not using the same function separator (either , or ;) consistently. Either the , or ; as can be used as a function separator but it must be used consistently throughout the whole question 6.	
When referring to a range of cells using a ; to indicate the range i.e. A10;D10	-1
Not using " " when working with text	-1
Using x instead of * or ÷ instead of /	-1
Logical issue in a formula e.g. multiply where we should divide, subtract where we should add, etc.	-1
Incorrect use of () or not using it where necessary or not closing brackets	-1
Using [] instead of ()	-1
Using SUM in a formula where it is not applicable i.e. =sum(H18 - H23)	-1
Using a formula when a function is available i.e. =B5+B6+B7 instead of =sum(B5:B7)	-1
Add an not applicable argument to the end of the function i.e. =Right(A11,1,1)	-1

6.1	=B3 ✓ &^"123"^&^B11^ \$B3 or \$B\$3 is correct	OR	=B3 ✓ &^123^&^B11^	3
6.2	=MID ✓ (B11 ✓ ,3^,1^)			3
6.3	=B13 ✓ *(1 ✓ +\$B4 ✓) \$B4 or \$B\$4 is correct	OR	=B13 ✓ *\$B4 ✓ +B13 ✓	3
6.4	=VLOOKUP ✓ (B11^,\$D4^:\$E7^,2^,FALSE ✓) \$D4:\$E7 or \$D\$4:\$E\$7 is correct			4

QUESTION 6 (continue)

6.5	$= (B14^{\wedge} - B13^{\wedge}) * B15^{\vee}$ OR $= \$B4^{\wedge} * B13^{\wedge} * B15^{\vee}$ OR $= B14^{\wedge} * B15^{\wedge} - B13^{\wedge} * B15^{\wedge}$ <i>\$B4 or \$B\$4 is correct</i>	2
6.6	$= B16^{\vee} * 1 / (1^{\vee} + \$B5^{\vee})$ <i>\$B5 or \$B\$5 is correct</i>	3
6.7	$= \text{ROUND}^{\vee} (\text{SUM}^{\wedge} (B17:E17^{\wedge}), 2^{\vee})$	3
6.8	$= \text{IF}^{\wedge} (B19^{\wedge} > ^{\wedge} B6^{\wedge}, B7^{\wedge} * B19^{\wedge}, B8^{\wedge} * B19^{\wedge})$ OR $= \text{IF}^{\wedge} (B19^{\wedge} < = ^{\wedge} B6^{\wedge}, B8^{\wedge} * B19^{\wedge}, B7^{\wedge} * B19^{\wedge})$ OR $= \text{IF}^{\wedge} (B19^{\wedge} > ^{\wedge} B6^{\wedge}, B7^{\wedge}, B8^{\wedge}) * B19^{\vee}$ OR $= \text{IF}^{\wedge} (B19^{\wedge} < = ^{\wedge} B6^{\wedge}, B8^{\wedge}, B7^{\wedge}) * B19^{\vee}$ OR $= \text{IF}^{\wedge} (B6^{\wedge} < ^{\wedge} B19^{\wedge}, B7^{\wedge} * B19^{\wedge}, B8^{\wedge} * B19^{\wedge})$ OR $= \text{IF}^{\wedge} (B6^{\wedge} > = ^{\wedge} B19^{\wedge}, B8^{\wedge} * B19^{\wedge}, B7^{\wedge} * B19^{\wedge})$ OR $= \text{IF}^{\wedge} (B6^{\wedge} < ^{\wedge} B19^{\wedge}, B7^{\wedge}, B8^{\wedge}) * B19^{\vee}$ OR $= \text{IF}^{\wedge} (B6^{\wedge} > = ^{\wedge} B19^{\wedge}, B8^{\wedge}, B7^{\wedge}) * B19^{\vee}$	4
6.9	$= ^{\wedge} \text{PMT}^{\vee} (B23^{\vee} / 12^{\wedge}, B24^{\wedge} * 12^{\wedge}, B21^{\wedge}, 10000^{\wedge}, 0^{\wedge})$ OR $= \text{PMT}^{\vee} (B23^{\vee} / 12^{\wedge}, B24^{\wedge} * 12^{\wedge}, ^{\wedge} B21^{\wedge}, 10000^{\wedge}, 0^{\wedge})$ OR $= \text{PMT}^{\vee} (B23^{\vee} / 12^{\wedge}, B24^{\wedge} * 12^{\wedge}, B21^{\wedge}, ^{\wedge} 10000^{\wedge}, 0^{\wedge})$ OR $= \text{PMT}^{\vee} (B23^{\vee} / 12^{\wedge}, B24^{\wedge} * 12^{\wedge}, B21^{\wedge}, 10000^{\wedge}, 0^{\wedge}) * ^{\wedge} -1^{\wedge}$	5

6.10

Error	Explanation
#N/A!	6.10.1) This error occurs when a value is not available to a function or a formula. \vee (1)
#NAME?	6.10.2) This error occurs when Microsoft Office Excel doesn't recognize text in a formula. \vee (1)
#VALUE!	6.10.3) Appears when you use the wrong type of argument in a function, \vee or the wrong type of operator, \vee or when you call for a mathematical operation that refers to cells that contain text entries. \vee (1 maximum)

(SG 1, study unit 5, par 2.1)

[33]
Total [100]