AIN2601
DPA202T

PRACTICAL ACCOUNTING DATA PROCESSING

Duration 2 Hours 100 Marks

EXAMINERS
FIRST.  MS C LEONARD  MR DJP SCOTT
SECOND  MS GM VIVIERS

Use of a non-programmable pocket calculator is permissible.

Closed book examination.

This examination question paper remains the property of the University of South Africa and may not be removed from the examination venue.

THIS EXAMINATION PAPER CONSISTS OF FOURTEEN (14) PAGES.

PLEASE NOTE:
1. All questions must be answered.
2. Each question must commence on a separate page.
3. Write the main question numbers numerically on the cover of the answer books.
4. Answer books may not be completed in pencil.
5. This paper consists of the following six (6) questions:

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>TOPIC</th>
<th>MARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Short questions (Multiple choice)</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>Short questions (Missing word)</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Software &amp; data processing</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>Pastel</td>
<td>23</td>
</tr>
<tr>
<td>5</td>
<td>Transaction processing</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>Excel spreadsheets</td>
<td>33</td>
</tr>
</tbody>
</table>

100

[TURN OVER]
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

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

[TURN OVER]
QUESTION 1  (continued)

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 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.

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.

<table>
<thead>
<tr>
<th>Type</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2.1 Input</td>
<td></td>
</tr>
<tr>
<td>3.2.2 Processing</td>
<td></td>
</tr>
<tr>
<td>3.2.3 Output</td>
<td></td>
</tr>
</tbody>
</table>

3.3 Define the term primary data field.

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.

3.5 List three (3) responsibilities/functions of a database administrator.

3.6 Briefly describe the following database models/structures:

3.6.1 Object-oriented

3.6.2 Multidimensional

3.6.3 Relational

[TURN OVER]
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%.

![Diagram of Pastel software interface]

Required:

4.1 Which Pastel main menu will you use for the following procedures?  
4.1.1 Capture cash receipts  
4.1.2 Modify inventory integration settings  
4.1.3 Update a specific customer account's credit limit  
4.1.4 Modify customer accounts from open item to balance forward processing  
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: 4.41 = Z
4.42 = Y

<table>
<thead>
<tr>
<th>Column A</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.41</td>
<td>The function of the icon</td>
</tr>
<tr>
<td>4.42</td>
<td>This is called the [File, Edit, Process, View, Change, Setup, Utility, Window, Help]</td>
</tr>
<tr>
<td>4.43</td>
<td>The function of the icon</td>
</tr>
<tr>
<td>4.44</td>
<td>The function of the icon</td>
</tr>
<tr>
<td>4.45</td>
<td>The function of the icon</td>
</tr>
</tbody>
</table>

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

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.

(Turn Over)
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?

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?
QUESTION 4 (continued)

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?
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.

<table>
<thead>
<tr>
<th>General ledger account description</th>
<th>Debit/Credit</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

[10]
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.

[TURN OVER]
QUESTION 6  (continued)

g) 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:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
<td>x</td>
<td>y</td>
<td>z</td>
<td>z</td>
</tr>
</tbody>
</table>

Characters 1-2 Random letters
Character 3 Cost price **including VAT** per unit
Character 4-5 Random letters

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

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

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>C</td>
<td>C</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

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

i) 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.
You created the spreadsheet below:

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAROL'S CANDY CORNER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>January 2013</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Business code</td>
<td>CCC</td>
<td></td>
<td>Number of units sold</td>
</tr>
<tr>
<td>4</td>
<td>Markup-margin</td>
<td>15%</td>
<td>CA2SS</td>
<td>240</td>
</tr>
<tr>
<td>5</td>
<td>VAT percentage</td>
<td>14%</td>
<td>CH4PS</td>
<td>450</td>
</tr>
<tr>
<td>6</td>
<td>&quot;Saving benchmark&quot;</td>
<td>R3,000</td>
<td>CH6TE</td>
<td>360</td>
</tr>
<tr>
<td>7</td>
<td>More than R3,000 gross profit</td>
<td>50%</td>
<td>CO3NK</td>
<td>800</td>
</tr>
<tr>
<td>8</td>
<td>R3,000 or less gross profit</td>
<td>30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Product name</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Barcode</td>
<td>CH6TE</td>
<td>CH4PS</td>
<td>CO3NK</td>
</tr>
<tr>
<td>12</td>
<td>Product code</td>
<td>CCC123CH6TE</td>
<td>CCC123CH4PS</td>
<td>CCC123CO3NK</td>
</tr>
<tr>
<td>13</td>
<td>Cost price per unit incl. VAT</td>
<td>6</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>Selling price per unit incl. VAT</td>
<td>R 6.90</td>
<td>R 4.60</td>
<td>R 3.45</td>
</tr>
<tr>
<td>15</td>
<td>Units sold</td>
<td>360</td>
<td>450</td>
<td>800</td>
</tr>
<tr>
<td>16</td>
<td>Total Gross profit incl. VAT per product</td>
<td>R 324.00</td>
<td>R 270.00</td>
<td>R 360.00</td>
</tr>
<tr>
<td>17</td>
<td>Total Gross profit excl. VAT per product</td>
<td>R 284.21</td>
<td>R 236.84</td>
<td>R 315.79</td>
</tr>
<tr>
<td>19</td>
<td>Total gross profit excl. VAT for all products</td>
<td>R 900.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Initial amount</td>
<td>R 270.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Interest rate (annual)</td>
<td>5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Term (years)</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Required monthly contribution</td>
<td>R 152.14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 to 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.

<table>
<thead>
<tr>
<th>Error</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>#N/A^1</td>
<td>6 10 1</td>
</tr>
<tr>
<td>#NAME?</td>
<td>6 10 2</td>
</tr>
<tr>
<td>#VALUE!</td>
<td>6 10 3</td>
</tr>
</tbody>
</table>

[33]  
Total [100]

© UNISA 2013