

**UNIVERSITY OF SWAZILAND  
FINAL EXAMINATION SEM-II, MAY, 2012**

Title of the Paper : STRUCTURED PROGRAMMING - II

Course Number : CS244

Time Allowed : Three (3) Hours

Instructions: Submit pseudo code on the answer script and all your files (program, data, results and any other) in the root directory of your **Examination userid**. The **Examination userid, password, tree, context and server** will be given to you by the chief invigilator. Include all file specifications in your F:\ on the top of the answer script.

Use the last 10 minutes to check the submitted files and print the program and report files. Submit answer script, the signed printed copy of your program and report files.

Read the paper completely before starting to work on the problem.

The names of program and result files should be –

----- .PAS (Program file) and  
----- .TXT (Result file)

The dashes in file names are six digits of your UNISWA id.

**Special requirements: For each student**

1. A networked PC with working Turbo Pascal system.
2. An accessible secure network disk (F:\) & Printing facility.

This paper should not be opened until permission has been granted by the invigilator.

**MARKING SCHEME:** Pseudo code (30 %), Results (20 %), Program (50 %)

**PROBLEM:** Information about monthly sales of agents of DLAMINI ASSOCIATES is given in a text file 'F:\2012.TXT'. Each record of this file has the following -

Agent Name	15 characters
Agent Id	6 digits - long integer
Count of orders	2 digits - integer
Sales Amount	Floating (6 digits before decimal, 2 digits after decimal)

Each field has been separated by a space character and Agent Id in sentinel record is zero.  
Example of a record -

BENNET L.A.            120786 35 182270.00

                          1                    2                    3                    4 {ARE COLUMN NOS}  
12345678901234567890123456789012345678901

Write pseudo code and a corresponding well documented and properly indented Pascal program that does the following –

1. Reads in all the data from 'F:\2012.TXT'.
2. Computes the Commission for each agent and displays the information on a report file ('F:\-----.TXT').
3. The six dashes in the report file name are six digits of your id number.

NOTES:

1. Commission (C) is computed by adding the base and the performance commissions.
2. The base commission (BC) is 100 times the count of orders of an agent.
3. The performance commission (PC) is computed as follows -

- PC is 25% of the sales amount if sales amount is 10000 or more,
- PC is 20% of the sales amount if sales amount is below 10000, but above 5000,
- PC is 15% of the sales amount if sales amount is 5000 or below, but above 1000
- PC is 10% of the sales amount if sales amount is 1000 or below.

4. The tax is 33 % of the commission (C).
5. A subprogram (function or procedure) should be declared and used to find the commission using count of orders and sales amount as parameters.

6. The contents of 'F:\2012.TXT' are -

```

SHONGWE L.A.      120785 05 08227.50
BENNET L.A.       120786 37 00601.50
THWALA D.M.       120251 04 04321.50
BEATRIC S.P.      120786 14 06500.00
DVUBA M.          120197 25 06059.00
SIBISI J.N.       120630 18 18560.00
VILAKATI K.       120246 10 15410.00
SISA D.M.         120240 16 80800.00
SENTINEL DATA    000000 00 00000.00
  
```

The report lay out should be -

REPORT PRODUCED BY THE PROGRAM OF

<YOUR ID>

DLAMINI ASSOCIATES, MBABANE  
SALES AGENTS COMMISSION REPORT, MAY 2012

```

=====
ID      NAME                ORDER SALES      COMMISSION TAX
                COUNT AMOUNT
=====
-----
-----
-----
=====
  
```

SUMMARY

=====

```

COUNT OF ALL ORDERS = ----
COUNT OF AGENTS    = ----
TOTAL SALES AMOUNT  = -----.--
TOTAL COMMISSION    = -----.--
TOTAL TAX           = -----.--
  
```

**<END OF EXAMINATION PAPER>**