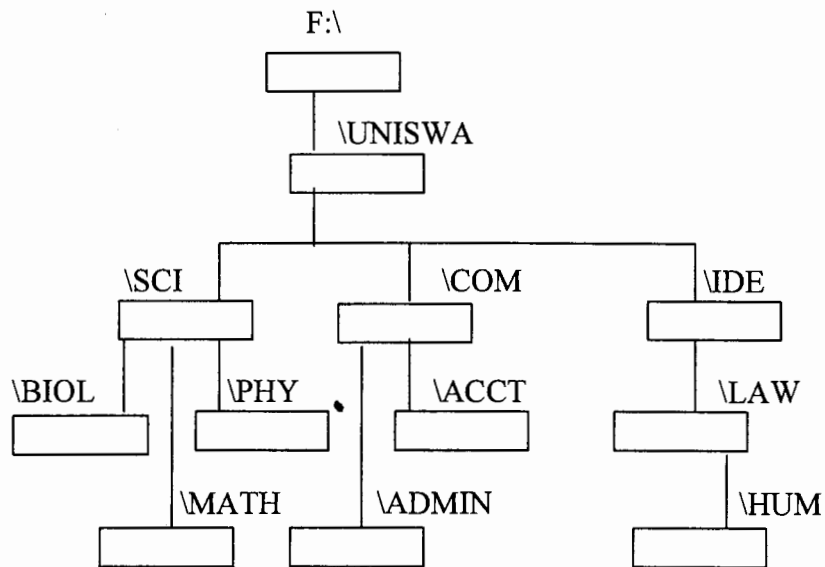


**UNIVERSITY OF SWAZILAND
FINAL EXAMINATION, MAY 2006**

Title of Paper : COMPUTER SCIENCE FOUNDATION COURSE
Course number : CSF 100
Time allowed : Three (3) hours.
Instructions : Answer all the questions. Choose options as given within
the questions.

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

Q1(a) (5 marks). Starting from the system prompt F:\> , write a sequence of MSDOS commands and system prompts to create the following directory tree structure in the root of F: . Assume that the root of F: is empty at the start.



Q1(b) (5 marks). In the context of the directory structure of Q1(a) above, write the names of all

- (i). Directories that are parent directories and also subdirectories
- (ii). Directories that are only sub directories, but not parent directories
- (ii). Directories that are parent directories but are not subdirectories

Q1(c) (5 marks). Write MSDOS command/s along with the correct system prompts to perform the following tasks independently. Assume that at the start of each task, the system prompt is F:\>. The context is the directory structure in question 1(a). Answer **any five** of the following.

- (i). Display on VDU the contents of the file EXAM.TXT which is in the subdirectory \HUM.
- (ii). Display on the VDU the contents of the subdirectory \MATH.
- (iii). Copy the file TEST.TXT in the \IDE subdirectory to the file TEST.PRN in \HUM subdirectory.
- (iv). Show the directory information of files in \PHY whose names start with the letter M and have extensions .DOC.
- (v). Change the name of the file LATEST.COM to RECENT.COM. Assume LATEST.COM is in \PHY subdirectory.
- (vi). Remove everything from the \SCI subdirectory. Assume that \PHY and \MATH have files, but \BIOL is empty.

Q2 (a) (6 marks). The context is MS Word as implemented in the Computer Centre Lab. Write names and examples of the following -

(i). All types of Alignment of a Paragraph.

(ii). All types of styles of texts.

Q2(b) (4 marks). Write clear steps of doing the following. Answer **any two** of the following –

(i). Joining two paragraphs into one paragraph.

(ii). Creating a text box

(iii). Changing the line spacing in a paragraph.

Q3(a) (3 marks). A formula in B3 is copied to D4. Write the copied formula in D4. Answer **any three** of the following. Assume that the contents of B3 are –

(i). $=\$A\$2*\$C\2

(ii). $=A1*C1$

(iii). $=A\$3+\$C3$

(iv). $=\$A4-C\4

Q3(b) (3 marks). Write all absolute, relative and partially relative cell addresses appearing in Q3(a) (i) to (iv).

Q3(c) (4 marks). The contents of a clipped spreadsheet file are shown below.

	A	B	C	D	E	F
1	8	12	21	44	5	5
2	3	8				
3	6	12				
4	4	11				
5	2	10				

Assume that A1..B5 has numbers as shown above and contents of D1, C1, E1 and E2 are -

$C1 = +B1+A1+1$, $D1 = +C1+ C1 +2$, $E1 = \$F\$1+0$, $E2 = +E1+D2$

The contents of C1..D1 are copied at C2..D5 and contents of E2 are copied at E3..E5.

Write the values stored in C2..E5.

Q4. (4+2+4 marks). The context is the DBMS program (MS Access) as implemented in the Computer Centre Lab. During a hospital survey, the following information was collected from several participating patients.

- | | |
|-------------------|---|
| 1. Patient id | 4 digit integer |
| 2. Patient name | 25 characters, Text |
| 3. Patient age | 2 digit integer (in years) |
| 4. Patient weight | Floating number (in Kg in the format xxx.x) |
| 5. Patient gender | 1 character Text (M - for male, F - for female) |
| 6. Patient height | 3 digit integer (in cms.) |

(a). Write the design / structure of a simple relational database table that can be used to store data of the above survey. Write names of your table and primary key. Give reasons about your primary key choice.

(b). Write three records of patients using suitable data of your choice, exactly in data sheet view.

(c). Now write select query command/s (SQL) to do the following tasks independently. Answer **any four** of the following -

(i). Retrieve Patient id, Patient age and Patient names so that Patient id's are in descending order.

(ii). Retrieve the whole data with Patient names, sorted in descending order.

(iii). Retrieve id's and names only of female Patients whose height is less than 150 cms.

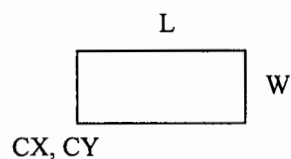
(iv). Retrieve id's and names of the male Patients who are above 80 years of age.

(v). Retrieve the names and age of all Patients whose weight is greater than 190 KG. Patient names should be sorted in descending order.

Q5(a) (5 marks). Draw the shape produced when the following screen effecting direct LOGO command is given. Also write the position and direction of the turtle after the command is executed independently. Assume that CLEAR command has already been given.

- (i) REPEAT 4 (TURN 45 FORWARD 5 TURN -45)
 (ii) REPEAT 3 (TURN 60 FORWARD 10 TURN 60)

Q5(b) (6 marks). Write a LOGO program RECTANGLE to draw a rectangle with left bottom corner at CX, CY. The length and width of the rectangle should be L and W respectively as follows.



Q5(c) (4 marks). Using the RECTANGLE program of Q5(b), write screen effecting direct LOGO commands to draw the following shape on the LOGO display screen. Use your own dimensions.



(End of Examination Paper)