UNIVERSITY OF SWAZILAND
SUPPLEMENTARY EXAMINATION, JULY 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 with the questions. Maximum mark is 60.

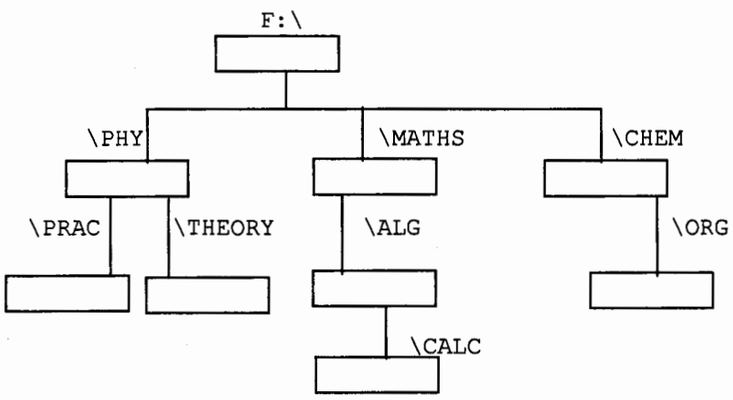
This paper should not be opened until permission has been granted by the invigilator.

Q1(a) (5 marks). Explain the meaning and distinction/s with examples between the following –

(i). System Program and Application Program

(ii). Internal and external memories in a general purpose computer

Q1(b) (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(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 above figure as shown in question Q1(b). Answer **any five** of the following.

(i). Display on SCREEN the contents of the file NOTES.TXT which is in the subdirectory \THEORY

(ii). Show on the SCREEN the contents of the subdirectory \CALC.

(iii). Copy the file LAB2.TXT in the \PRAC subdirectory to the file LAB2NEW.PRN in \ALG subdirectory.

(iv). Remove all the files with .EXE extension from the sub directory \CALC.

(v). Change the name of the file OLD.COM to NEW.COM. Assume NEW.COM is in \ORG subdirectory.

(vi). Remove everything from the \MATH subdirectory. Assume that \ALG and \CALC are not empty.

Q2 (a) (6 marks). The context is MS Word as implemented in the Computer Centre Lab. Explain the method and give at least three examples of each of the following. Answer **any two** of the following -

(i). Subscript and superscript

(ii). Text justification

(iii). Font Styles

Q2(b) (4 marks). Explain the distinction/s, meaning and usefulness of the following in MS Word. Answer **any two** of the following –

(i). 'Cut' and 'copy' .
(ii). 'Find' and 'Replace'.
(iii). 'Paste' and 'Paste Special'.

Q3(a) (3 marks). A formula in A4 is copied to D5. Write the copied formula in D5. Answer **any three** of the following. Assume that the contents of A4 are –

(i). =$B$1*$D$1

(ii). =B1*D1

(iii). =B$1+$D1

(iv). =$A1-D$1

Q3(b) (3 marks). Write addressing modes of all the cell addresses in Q3(a) above.

Q3(c) (4 marks). A clipped spreadsheet contents are shown below.

	A	B	C	D	E
1	7	12	19	44	6
2	8	5			
3	4	9			
4	3	11			
5	2	10			

Assume that A1..E5 has numbers as shown above and contents of C1 and D1 and are -

C1 = +B1+A1 , D1 = +A1+B1+C1+$E$1

The contents of C1..D1 are copied at C2..D5 and contents of E1 are copied at E2..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. The UNISWA library wants to keep information about its book collections in its stock. The information consists of the following -

1. Title of the book	60 characters
2. First author surname	20 characters
3. First author other names	50 characters
3. Book ISBN number	10 digits
4. Year of acquisition	4 digits
5. Price of the book	4 digits for Emlangeni, 2 for cents (-----.--)

Write the structure or design view of a simple relational database table that can be used to store the above information for the library. Write the table name and field name of the primary key. Give reasons of your primary key choice.

Write 2 records of your table in Data sheet view.

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

(i). Create a list displaying the title and First Author surname of every book. The First Author surname of books should be sorted in ascending order.

(ii). Create a list displaying the title, ISBN and price of every book acquired in the year 1997.

(iii). Create a list displaying the ISBN number and price of every book whose price is above E100.00. ISBN numbers should be sorted in descending order.

(iv). Create a list of titles of the books whose first author surname is 'LIZEL'. No sorting is to be done.

(v). Create a list displaying the ISBN number and price of every book acquired between the years 1990 and 2000 (both inclusive). ISBN numbers should be sorted in ascending order.

Q5(a) (5 marks). Draw the shape produced when the following screen effecting direct LOGO command is given. Assume that CLEAR command has already been given. Write the position coordinates and direction of the turtle at the end of the command

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(i)    REPEAT 3 (FORWARD 10 TURN 90)

(ii)   REPEAT 6 (FORWARD 50 TURN 60)
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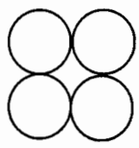
Q5(b) (6 marks). Write a LOGO program CIRCLE to draw a circle of radius R and CENTRE at CX, CY.

Q5(c) (4 marks). Using the CIRCLE program of Q5(b), write screen effecting direct LOGO commands to draw the following shape on the LOGO display screen. Use your own dimensions. Centres are on a horizontal line and radius of each circle is same.



(End of Examination Paper)