

**UNIVERSITY OF SWAZILAND
SUPPLEMENTARY EXAMINATION, JULY 2011**

Title of Paper : COMPUTER SCIENCE FOUNDATION COURSE

Course number : CSF100

Time allowed : Three (3) hours.

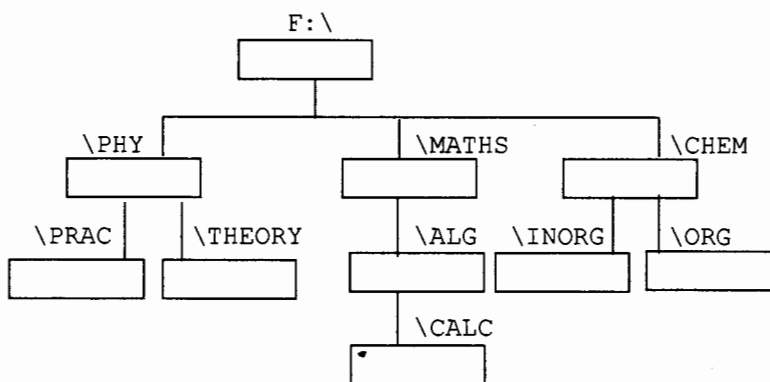
Instructions : Answer all the questions. Choose options as given with
The questions.

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). Internal and external memories
- (ii). Internal and external commands

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 a single MSDOS command along with the correct system prompt 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 VDU the contents of the file `NOTES.TXT` which is in the subdirectory `\THEORY`
- (ii). Display on the VDU the contents of the subdirectory `\ORG`.
- (iii). Copy the file `LAB5.TXT` in the `\PRAC` subdirectory to the file `LAB5NEW.PRN` in `\ALG` subdirectory.
- (iv). Change to subdirectory `\CALC`.
- (v). Change the name of the file `NEW.COM` to `OLD.COM`. Assume `NEW.COM` is in `\THEORY` subdirectory.
- (vi). Remove all `.doc` files from the `\MATH` subdirectory.

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

- (i). Italic and underlined text
- (ii). Numbered lists
- (iii). Text justification
- (iv). Fonts styles

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

- (i). 'Save' and 'Save As' .
- (ii). 'Print' and 'Print Preview'.
- (iii). 'Paste' and 'Paste Special'.

Q3(a) (3 marks). Explain the absolute, relative and partially relative addressing modes of cell references in MS Excel. Write examples.

Q3(b) (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). $=\$B1*\$D1$
- (ii). $=C2*D2$
- (iii). $=E\$1+\$D5$
- (iv). $=\$A1-D\1

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

| | A | B | C | D | E | F |
|---|----|----|---|---|---|---|
| 1 | 18 | 12 | | | 7 | |
| 2 | 7 | 5 | | | | |
| 3 | 23 | 9 | | | | |
| 4 | 14 | 11 | | | | |
| 5 | | 10 | | | | |

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

$$C1 = +B1+B2+A1, D1 = +A1+B1+C1+\$E\$1, E1 = 7$$

The contents of C1..D1 are copied to C2..D4 and contents of E1 are copied to E2..E5.

Write the formula and values stored in C2..E4.

Q4. (10 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 | 5 digits for Emlangeni, 2 for cents (----- .--) |

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

Write command view in SQL to do the following tasks independently. Answer **any five** of the following -

- (i). Create a list displaying the title and ISBN number of every book. The titles of books should be sorted in ascending order.
- (ii). Create a list displaying the title, surname of the first author 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 less than E10/=. ISBN numbers should be sorted in descending order.
- (iv). Create a list of titles of the books whose first author surname is 'SHONGWE'.
- (v). Create a list displaying the ISBN number and price of every book acquired in the years 1990 or 2000 ISBN numbers should be sorted in descending order.
- (vi). Create a list displaying the Title and price of every book whose price is E500/= or more.

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 and direction of the turtle at the end of the command

(i) REPEAT 3 (FORWARD 60 TURN 60 TURN 60) **and**

(ii) REPEAT 3 (FORWARD 20 TURN 90)

Q5(b) (6 marks). Write a LOGO program whose name is RECTANGLE to draw a rectangle of length L and width W with bottom left corner at CX, CY.

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.

