

**UNIVERSITY OF SWAZILAND
SUPPLEMENTARY EXAMINATION, JULY 2012**

Title of Paper : COMPUTER SCIENCE FOUNDATION COURSE

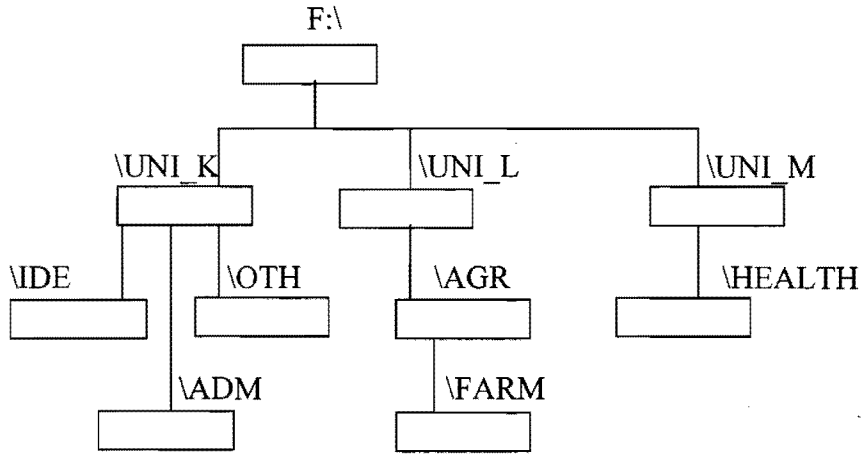
Course number : CSF 100

Time allowed : Three (3) hours.

Instructions : Answer all the questions. Choose options as written within 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
- (iii). Directories that are parent directories but not subdirectories.

Q1(c) (5 marks). Write a **single** MSDOS command along with the correct system prompt to perform each of 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. Assume that the display is always on the screen

- (i). Display the contents of the file RADER.TXT which is in the subdirectory \FARM.
- (ii). Display the contents of the subdirectory \AGR.
- (iii). Copy the file EXAM.DOC in \UNI_L subdirectory to the file TEST.DOC in \ADM subdirectory.
- (iv). Show the directory information in \UNI_K whose names start with the letter K.
- (v). Change the name of the file NEW.COM to OLD.COM. Assume NEW.COM is in \HEALTH subdirectory.
- (vi). Remove all files from \UNI_K subdirectory.

Q2 (a) (4 marks). The context is MS Word as implemented in the Computer Centre Lab. Explain the steps to create the following with examples -

- (i). Change text to superscript, when text has already been typed.
- (ii). Underline and centre, when the text has not been typed.

Q2(b) (6 marks). Write clear steps of doing the following. Answer **any two** of the following –

- (i). Inserting a word ‘UNISWA’ at the start of a paragraph.
- (ii). Making a bulleted list when items are not typed
- (iii). Make the last paragraph as the first paragraphs in an open document.

Q3(a) (3 marks). The following formulas are copied from one cell to another. Write the copied formula in the destination cell. Answer **any three** of the following.

- (i). =A\$2*\$C\$2 (is copied from B1 to D4, What is copied in D4 ?).
- (ii). =B1*C1 (is copied from A1 to B4, What is copied in B4 ?).
- (iii). =A\$3+\$C3 (is copied from D2 to D4, What is copied in D4 ?).
- (iv). =\$A4-C\$4 (is copied from B2 to F4, What is copied in F4 ?).

Q3(b) (3 marks). Write clearly 3 sets of cell addresses appearing in Q3(a) (i) to (iv) having only absolute cell addresses, having only relative cell addresses and having only partially relative cell addresses respectively.

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

	A	B	C	D	E	F
1	8	12	17	-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 and C1 are -

$C1 = A1+B1-A2$, $D1 = B1-C1$, The contents of C1..D1 are copied at C2..D4. Write the values and formulas stored in C2..D4.

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

- | | |
|-------------------|--|
| 1. Student id | 6 digits, same as UNISWA student id |
| 2. Student name | 25 characters, |
| 3. Student age | 2 digits (in years) |
| 4. Student weight | number (in 3 digits for Kg & 1 digit for grams as xxx.x) |
| 5. Student gender | 1 character (M - for male, F - for female) |
| 6. Student height | 3 digit integer (in cms.) |

(a). Write the design view 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 five records of students using suitable data of your choice, exactly in data sheet view.

(c). Now write Command view (SELECT SQL command) to do the following tasks independently. Answer **any four** of the following -

(i). List Student id, Student age and Student names so that Student id's are greater than 120000.

(ii). List the whole data of all female students, names should appear in descending order.

(iii). List id's, age and height only of male Students whose weight is larger than 180 Kg.

(iv). List id's and gender of the male Students who are above 60 years of age.

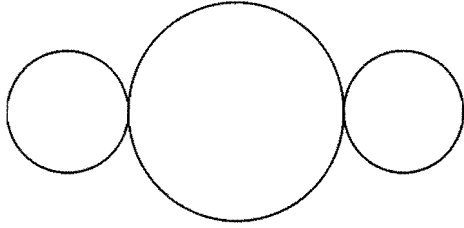
(v). List the names and age of all Students whose height is greater than 190 cms. Student names should be sorted in descending order.

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

- (i) REPEAT 3 (FORWARD 20 TURN 90 FORWARD 10 TURN -90)
(ii) REPEAT 2 (FORWARD 40 TURN 120)

Q5(b) (6 marks). Write a LOGO program named CIRCLE to draw a circle with centre point at CX, CY and radius R.

Q5(c) (4 marks). Using the CIRCLE program of Q5(b), write screen effecting direct LOGO command/s to draw the following. Use your own correct dimensions.



The centres of the above three circles lie in one horizontal straight line.

(End of Examination Paper)