

DiplETE – ET (OLD SCHEME)

Code: DE14

Subject: COMPUTER SOFTWARE FUNDAMENTALS

Time: 3 Hours

Max. Marks: 100

JUNE 2009**NOTE: There are 9 Questions in all.**

- Question 1 is compulsory and carries 20 marks. Answer to Q. 1. must be written in the space provided for it in the answer book supplied and nowhere else.
 - Out of the remaining EIGHT Questions answer any FIVE Questions. Each question carries 16 marks.
 - Any required data not explicitly given, may be suitably assumed and stated.
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Q.1 Choose the correct or the best alternative in the following: (2 × 10)

a. Windows is popular because of its

- (A) GUI features. (B) multitasking capacity.
(C) Desktop technology. (D) because it is inexpensive.

b. In Excel intersection of a row and column is called

- (A) square. (B) cell.
(C) worksheet. (D) range.

c. Programs written in a High Level Language is called

- (A) language program. (B) object program.
(C) source program. (D) subprogram.

d. A debug is a term denoting

- (A) error correction process.
(B) writing of instructions in developing a new program.
(C) fault detection in equipment.
(D) determining useful life.

e. Batch processing system

- (A) uses one user program at one time.
(B) requires fairly simple operating system.
(C) may use any secondary storage device.
(D) all of the above.

f. A flowchart is

- (A) used by students for learning purposes.
(B) a method of programming.
(C) a method of displaying a problem in simple steps.
(D) used to find solution to complicated mathematical problems.

- g. BASIC is a
- (A) High level language. (B) Software language.
 (C) medium level language. (D) low level language.
- h. Where does a Header always appear in a document?
- (A) At the top of the page (B) At the bottom of the page
 (C) Only on the first page (D) Only on the first section
- i. Which file is usually located in the root directory?
- (A) config.sys (B) autoexe.bat
 (C) command.com (D) setup.exe
- j. Multiple instances of a class are
- (A) Members. (B) Modules.
 (C) Classes. (D) Objects.

**Answer any FIVE Questions out of EIGHT Questions.
 Each question carries 16 marks.**

- Q.2** a. Draw a flowchart to find the factorial of a number. (8)
- b. What are the various steps to be followed for constructing a decision table? (8)
- Q.3** a. Write an algorithm to check whether the number is prime or not. (8)
- b. What are the characteristics of a good programming language? (8)
- Q.4** a. What are the different types of errors that are found in computer programs? Which type of error is more difficult to detect and correct. (8)
- b. Write a program in FORTRAN to find the sum of digits of a number (8)
- Q.5** a. Differentiate between modular and structured programming technique. (8)
- b. What are the advantages and disadvantages of interpreter over compiler? (4)
- c. Why it is impractical to store all the lines of program code in a single source file? (4)
- Q.6** a. What are the advantages and disadvantages of virtual memory? (8)
- b. Describe the three commonly used types of directory organizations? Give their advantages and disadvantages. (8)
- Q.7** a. Describe the features of DOS and UNIX operating system. (8)

b. What is a deadlock? Explain with an example. **(8)**

Q.8 a. Write steps to do the following in MS-Word.

- (i) Copying a text.
- (ii) Display the text in the centre.
- (iii) Insert the bulleted list in a document.
- (iv) Insert a mathematical symbol. **(8)**

b. A worksheet contains the following details. Give the sequence of steps to draw the column graph.

	A	B	C	D	E	
Qtr1	Qtr2	Qtr3	Qtr4			
	West	12000	22000	18000	16000	
	North	14000	44000	56000	31000	
	South	34000	35000	35000	41000	
	East	21000	16000	12000	28000	(8)

Q.9 a. Differentiate between vector graphics and raster graphics. Give their advantages and disadvantages. **(8)**

b. Write Short notes on

- (i) Spell check
- (ii) worksheet
- (iii) Real Time Operating System
- (iv) C language **(8)**

(6)