DipIETE – ET (OLD SCHEME)

Code: DE14 **Subject: COMPUTER SOFTWARE FUNDAMENTALS**
Time: 3 Hours **Max. Marks: 100**

DECEMBER 2010

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.**
- **The answer sheet for the Q.1 will be collected by the invigilator after half an hour of the commencement of the examination.**
- **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.**

Q.1 **Choose the correct or the best alternative in the following:** (2 × 10)

a. In a computer 'debugger' is a part of

  (A) hardware.   **(B)** software.
  (C) disc drive.   **(D)** CPU.

b. A programming language is a system of ………………for describing computations.

  (A) notations.   **(B)** algebraic signs.
  (C) rules.   **(D)** definitions.

c. Recognition of basic syntactic constructs through reductions, this task is performed by

  (A) Lexical analysis.   **(B)** Syntax analysis.
  (C) Semantic analysis.   **(D)** Structure analysis.

d. _____ is a technique of temporarily removing inactive programs from the memory of computer system

  (A) Swapping   **(B)** Spooling
  (C) Semaphore   **(D)** Scheduler

e. Compiler is a software which converts

  (A) high level language program into low level language program..
  (B) source program into object program.
  (C) program in high level language into program in low level language.
  (D) program in source language into program in object language.

f. Fortran, COBOL, BASIC, C all are the

  (A) Low level languages   **(B)** Machine languages
  (C) High level languages   **(D)** Natural languages

g. Which of the following shortcut key is used to check spelling in MS-Word?

(A) F1　　　　　　　　　　(B) F2
(C) F9　　　　　　　　　　(D) F7

h. Which of the following is not an application software?

(A) Operating System　　　(B) Notepad
(C) Text Editor　　　　　　(D) Word processor

i. Which of the following is the default extension of a file in MS-Excel?

(A) EXL　　　　　　　　　(B) XLS
(C) EXC　　　　　　　　　(D) EXE

j. The advantage of using a spreadsheet is:

(A) Calculations can be done automatically.
(B) Changing data automatically updates the calculations
(C) More flexibility.
(D) All of the above.

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

Q.2 a. Draw a flow chart to determine if the triangle formed from the three given sides is isosceles, equivalent or scalene. **(8)**

b. What is a decision table? List out the steps to construct a decision table. **(8)**

Q.3 a. What is an Operating system. What are it's goals? Explain about the various types of Operating Systems. **(8)**

b. Write a program in BASIC to find out factorial for the given number. **(8)**

Q.4 a. Explain the top-down programming design technique. Give its limitations. **(8)**

b. Give the advantages of high level languages over the assembly languages and machine languages. **(8)**

Q.5 a. Give the rules for drawing flowcharts. **(4)**

b. What is a linker? Illustrate the process of compiling multiple source program files and linking them to create an executable program. **(6)**

c. Explain any two fundamental file organization techniques. **(6)**

Q.6 a. Enumerate the three basic control structures used in various programming languages with examples. **(8)**

b. What is Mail Merge? List out the steps followed in Mail Merge technique. **(8)**

Q.7 a. In DOS, what do these commands do?
   (i) COPY   (ii) CHKDSK
   (iii) PROMPT   (iv) DISKCOMP   **(4)**

b. Write the applications and advantages of Spread Sheet? **(6)**

c. What is the purpose of CONFIG.SYS and AUTOEXEC.BAT file? **(6)**

Q.8 a. Give the sequence of steps to draw the bar graph in an EXCEL / spread sheet with an example. **(4)**

b. Write a short note on features:
   Drag and drop objects, paint drawings and pictures of a graphic package.
   (6)

c. What is justification? Explain briefly the various ways of justifying a paragraph in MS WORD. **(6)**

Q.9 a. Write short notes on
   (i) Command line interface
   (ii) Graphical user interface. **(8)**

b. Explain the concept of dynamic linking. **(4)**

c. Explain page fault and its consequences thereafter w.r.t. memory management unit of operating system. **(4)**