

Code: DE14
Time: 3 Hours

Subject: COMPUTER SOFTWARE FUNDAMENTALS
Max. Marks: 100

DECEMBER 2007

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.**

Q.1 Choose the correct or best alternative in the following: (2x10)

a. _____ is a pictorial representation of an Algorithm.

- | | |
|--------------------|----------------|
| (A) Flowchart | (B) Program |
| (C) Decision table | (D) Pseudocode |

b. Pseudocode is also called as _____.

- | | |
|-----------------------------|--------------------------|
| (A) Pseudo design language | (B) Program design logic |
| (C) Program design language | (D) Pseudo design logic |

c. "Symbolic program" is a program written in

- | | |
|-------------------------|------------------------|
| (A) Machine language | (B) Assembly language |
| (C) High Level language | (D) Graphical language |

d. The procedures in an object oriented program are called

- | | |
|----------------|---------------|
| (A) Methods | (B) Objects |
| (C) Mechanisms | (D) protocols |

e. All of the following are divisions of a COBOL program except

- | | |
|---------------|--------------------|
| (A) Data | (B) Identification |
| (C) Procedure | (D) Input-output |

f. Which of the following C variable names is incorrect?

- | | |
|---------|----------|
| (A) DE5 | (B) \$DE |
| (C) _DE | (D) DE4 |

g. A Recursive function

- | | |
|-----------------------------|-----------------------------|
| (A) Calls many function | (B) Calls only one function |
| (C) Calls itself many times | (D) Calls itself only once |

h. CPU bound jobs have

- | | |
|--|--|
| (A) No I/O activity | (B) Have only CPU activity |
| (C) Have less CPU activity and more I/O activity | (D) Have less I/O activity and more CPU activity |

i. Threads are

- | | |
|---------------------------------|------------------------------------|
| (A) Light weight processes | (B) Reduce context switch overhead |
| (C) Facilitate resource sharing | (D) All of the above |

j. Command interpretation is done by

- (A) Kernel
(C) Microkernel

- (B) Shell
(D) Supervisor

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

- Q.2** a. Draw the basic format of a decision table and discuss the role of each part. (8)
- b. Draw a decision table to pick the largest number and print, out of three numbers supplied by the user. (8)
- Q.3** a. Write a FORTRAN program to compute and print sum of 10 numbers. (8)
- b. Write a C-program to find a given element in an array of 10 elements. (8)
- Q.4** a. Explain how CPU is switched from one job to other in a Multiprogramming system? (8)
- b. Differentiate between tightly coupled and loosely coupled multiprocessor systems. (8)
- Q.5** a. What are batch processing systems? How are jobs executed in a batch processing system? (6)
- b. What is memory fragmentation? What is internal and external fragmentation? (6)
- c. What is the difference between multiprogramming and multiprocessing? (4)
- Q.6** a. Differentiate between the following
(i) relative and absolute addresses in spreadsheets
(ii) Thesaurus and Spell check (6)
- b. What are the facilities offered by a personal assistance package? (6)
- c. Explain the various types of text justifications that are available in word processing packages. (4)
- Q.7** a. Describe the structure of any two of the following:
DOS, UNIX, WINDOWS (10)
- b. What are deadlocks? Explain with the help of examples. (6)
- Q.8** a. Differentiate between the following:-
(i) Top-down and bottom-up design approach.
(ii) Modular and structured programming techniques. (10)
- b. Write steps to do the following in MS-WORD:
(i) Insert a picture from a file named "abc.jpg" in the current directory.
(ii) Insert a date in footer.
(iii) Leave a space of 16-pt. after every paragraph in the document. (6)
- Q.9** Write short notes on the following:
(i) Cell in a spreadsheet
(ii) Graphics package
(iii) Programming Techniques
(iv) Linker (16)

