

## PGDCA / MCA (I Yr) / BCA

## Term-End Examination

June, 2007

## CS-02 : INTRODUCTION TO SOFTWARE

Time : 2 hours

Maximum Marks : 60

**Note :** Question number 1 is **compulsory**. Attempt any **three** questions from the rest.

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1. (a) Explain the working of a 2-pass assembler in detail. 6
- (b) Write a shell program to copy the contents of *file1* to another *file2*. Also write an algorithm for it. 6
- (c) Explain the client-server model with the help of an example application. 6
- (d) Explain the following concepts in UNIX with an example for each : 6
  - (i) filters
  - (ii) pipes
  - (iii) file permissions
- (e) Explain various stages of systems investigation. 6

2. (a) Explain the concept of 'Buffering' with the help of a diagram. 4
- (b) How can compaction be a solution for the external fragmentation problem in memory management ? Illustrate with the help of an example. 6
3. (a) Explain with suitable examples : 5
- (i) inodes
- (ii) file structure in UNIX
- (b) What do you understand by syntax and semantic analysis ? Explain in detail. 5
4. (a) What is 4GL ? What are its limitations ? How can 4GLs help in solving the software problems ? 5
- (b) Define the following UNIX commands : 5×1=5
- (i) echo
- (ii) cat
- (iii) ls
- (iv) cc
- (v) admin
5. (a) List and explain the mechanism to support the file protection in multiuser environment. 5
- (b) List and explain any five important qualities of a software product. 5