

PGDCA / MCA (I Year) / BCA

Term-End Examination

June, 2011

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) Describe how fixed length record I/O and variable length I/O are implemented in UNIX system. 5
 - (b) Design an algorithm and draw a corresponding flow chart to generate the fibonacci series. 7
 - (c) Write a shell program that counts the number of words and lines in a given text file. 6
 - (d) What is meant by Segmentation ? With the help of a diagram, explain the address translation scheme in a segmentation system. 5
 - (e) Explain the processes involved in Prototyping model. Also, differentiate between Unit testing and Integration testing with the help of an example for each. 7

2. (a) Explain the criteria to select a CASE Tool. Also, explain any two CASE Tools. 6
- (b) How is a directory in WINDOWS categorised in terms of its file structure ? Explain with a diagram. 4
3. (a) List and explain the mechanism to support the file protection in multiuser environment 5
- (b) Define the purpose/use of following UNIX Commands. 5x1=5
- (i) Cat
 - (ii) Pwd
 - (iii) echo
 - (iv) CC
 - (v) diff
4. (a) What is deadlock ? Explain the essential requirements or conditions for deadlock to occur. 6
- (b) Explain the functionality and implementation of two pass assembles. 4

5. (a) Construct context free grammar for the switch and if - else statements as given in C language. 5
- (b) Name and explain two disk allocation methods. Mention their relative advantages and disadvantages. 5
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