

**4E2919**

Roll No. : \_\_\_\_\_

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**B. Tech. (Sem. IV)(Main & Back) Examination, June/July - 2011**  
**4CS5 - Software Engg.**  
**(Computer & IT) (Common for CS & IT)**

Time : 3 Hours]

[Total Marks : **80**  
[Min. Passing Marks : **24***Attempt any five questions.*

*All questions carry equal marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used / calculated must be stated clearly.*

Use of following supporting material is permitted during examination.  
(Mentioned in form No. 205)

1. \_\_\_\_\_ Nil 2. \_\_\_\_\_ Nil

- 1 Define a system, enlist and explain its characteristics. Explain SDLC in detail.

**16****OR**

- 1 What is system analysis ? Give all the steps with diagrams for modeling the system architecture.

**16**

- 2 (a) Explain the differences between hardware and software, depict the relevant curves.  
(b) Give with diagram all the steps of waterfall model.

**16****OR**

- 2 Explain prototyping and spiral models in detail, also differentiate between them.

**16**

- 3 What are requirement analysis tasks and principles ? Create an FSM which accepts a valid 'C' language integer.

**16****OR****4E2919]****1****[Contd...**

- 3 Create DFDs and CFDs upto level 2 for a photocopying machine's software's working.

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- 4 Distinguish between cohesion and coupling. Explain both cohesion and coupling spectrums.

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OR

- 4 Give style rules for good programming. How do you quantify program quality ?

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- 5 Differentiate between object oriented analysis modeling and data modeling. What is object modularization ?

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OR

- 5 Draw and explain class diagram, object diagram and process diagram. List all the diagrams available in UML.

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