

B.Tech. IV Semester (Main) Examination, June/July - 2015

Computer Science and Engineering

4CS4 A Software Engg

Time : 3 Hours

Maximum Marks : 80

Min. Passing Marks : 26

Instructions to Candidates:

Attempt any five questions, selecting one question from each unit. 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.)

Unit - I

1. a) Explain the system development life cycle (SDLC) in detail (8)
- b) Discuss problems that occur while developing a system and suggest possible solutions (8)

OR

1. a) Describe the computer based system as an organization information system with example. Explain various computer based information systems (5+5)
- b) Explain the system development plan in detail (6)

Unit - II

2. a) Explain the software development life cycle with diagram (8)
- b) Explain the spiral model with advantages and disadvantages (8)

OR

2. a) Explain the waterfall model with advantages and disadvantages (8)

b) Write short notes on:- (any two)

- i) RAD model
- ii) Prescriptive model
- iii) Software characteristics

(4+4=8)

Unit - III

3. a) What is requirement analysis. Explain the requirement analysis tasks and principles. (8)
- b) What do you understand by structured analysis. Explain data and control flow diagrams. (8)

OR

3. a) Write short notes on:-
- i) Software prototyping
 - ii) Behavioral modeling
- (2x6=12)
- b) What do you understand by data dictionary where and how it is used (4)

Unit - IV

4. a) Define the meaning of software design, explain the design fundamentals for software design (8)
- b) Explain the effective modular design in detail (8)

OR

4. a) Explain the design documentation with example (8)
- b) Explain the programming style and program quality (8)

Unit - V

5. a) List out the various activities that are encompassed by system design process under object oriented design (OOD) and explain each one briefly (10)
- b) Explain the object modularization with example (6)

OR

5. Write short notes on:- (any two)

- i) Unified modeling language(UML)
- ii) Object Oriented Analysis modeling
- iii) Object Oriented design concepts and methods

(8x2=16)