

5E3159

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B. Tech. V Sem. (Re-Back) Exam .-Dec. 2012

Software Engg.

Computer Science, 5CP/CS1

Time: 3 Hours

Maximum Marks: 80

Min. Passing Marks: 32

Instructions to Candidates:

Attempt any **five question** 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.

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

1. Nil 2. Nil

UNIT-I

- Q1. (a) What are the system and subsystem? Explain with the help of an example. (4)
- (b) Briefly describe the SDLC. (6)
- (c) Describe the various system elements and system characteristics. (6)

OR

- (a) Explain the major problems and their solutions in system development. (6)
- (b) Explain the concept of computer system engineering. (5)
- (c) Describe feasibility study in detail. (5)

UNIT-II

- Q2. (a) Explain the various activities of project management process. (8)
- (b) Differentiate between the LOC and FP estimation techniques. Explain how they estimate the size of the software project. (8)

OR

- (a) Describe software project estimation. Explain briefly the various decomposition techniques. (8)
- (b) What is COCOMO? How it can be used to estimate the size of the software development time? (8)

UNIT-III

- Q3. (a) What is prototyping? Explain its purpose with an example. (8)
- (b) Write short notes on:-
- (i) Data dictionary (8)
- (ii) Use-cases

OR

- (a) Describe the characteristics of SRS in detail. (8)
- (b) Draw state transition diagram to model the working of:-
- (i) An ATM machine
- (ii) A lift (8)

UNIT-IV

- Q4. (a) Explain the distinction between coupling and cohesion. (6)
- (b) What are software design principles and concepts? (5)
- (c) Explain decision table with an example. (5)

OR

- (a) What is a good software design? Why is it needed in software development process? Explain briefly the software design process.

(10)

(8)

- (b) Explain the following with example:-

(i) DFD

(ii) Abstraction

(6)

UNIT-V

- Q5. (a) Draw a Use-case diagram for an online Admission process. Include all possible activities or use-cases for this process.

(8)

(8)

- (b) What are the benefits of the object - oriented design?

(5)

- (c) Explain the concept of object modularization.

(3)

OR

- (a) What is UML? Explain how it is useful in object- oriented modeling.

(8)

(6)

- (b) Draw an object diagram for a system to transfer data between two computers over a communication line.

(8)

- (c) What do you mean by refining operation?

(2)

(8)

(8)

(6)

(5)

(5)