

# CBCS Scheme

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15CS42

## Fourth Semester B.E. Degree Examination, June/July 2017 Software Engineering

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing  
ONE full question from each module.

### Module-1

- 1 a. What are the fundamental activities of software engineering? (04 Marks)  
b. With neat diagram, explain the water-fall model of software development process. (06 Marks)  
c. With a diagram, explain the rational unified process. (06 Marks)

OR

- 2 a. What is requirement specification? Explain various ways of writing system requirements. (06 Marks)  
b. Why the understanding of requirements from stake holders is difficult task? Explain. (05 Marks)  
c. Explain the different checks to be carried out during requirement validation process. (05 Marks)

### Module-2

- 3 a. Draw a context model for patient information system. How the interactions are modeled? (06 Marks)  
b. Explain the terms class diagram, generalization and aggregation. (06 Marks)  
c. What is model Driven engineering? State the three types of abstract system models produced. (04 Marks)

OR

- 4 a. What are the things to be done for a design of object oriented system? How the objects are identified? (05 Marks)  
b. What is design pattern? Explain four elements of design pattern. (06 Marks)  
c. What is software reuse? State the general models of open source licenses. (05 Marks)

### Module-3

- 5 a. State the two goals and three levels of granularity of software testing process. (05 Marks)  
b. What is test driven development? State the benefits of test driven developments. (05 Marks)  
c. Explain the six stages of acceptance testing process. (06 Marks)

OR

- 6 a. With neat diagram, show the software evolution process and explain the 'Lehman's Law' concern to system change. (10 Marks)  
b. What is software maintenance? State the activities of re-engineering process. (06 Marks)

**Module-4**

- 7 a. Explain the factors to be considered for approval of change. (05 Marks)  
b. Explain the features provided by version management systems. (05 Marks)  
c. What is configuration management? State the four activities of configuration management. (06 Marks)

OR

- 8 a. What is system building? State the features available in the system building tools. (10 Marks)  
b. Explain the factors to be considered for release planning of system. (06 Marks)

**Module-5**

- 9 a. Explain the ways of coping with change and reduction of rework cost. (06 Marks)  
b. Explain the practices involved in the extreme programming. (10 Marks)

OR

- 10 a. State the principles of agile methods. (05 Marks)  
b. How the agile methods are scaled? State the coping of agile methods for large system engineering. (05 Marks)  
c. Write a note on pair programming. (06 Marks)

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