

2014  
B.E. (Computer Science and Engineering)  
Fourth Semester  
CS-404: Software Engineering

Time allowed: 3 Hours

Max. Marks: 50

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

- a) What are major challenges in software engineering?
- b) Name the best and worst coupling and cohesion level?
- c) Differentiate among alpha and beta testing.
- d) What is agile software development?
- e) What is aggregation and composition in class diagrams (5x2)

**UNIT - I**

- II. Explain basic COCOMO and intermediate COCOMO model to calculate cost, time, and staff for a software project. (10)
- III. a) Explain the merits and demerits of RAD and RUP model.  
b) Discuss the structured design methodology. (2x5)
- IV. a) Explain the various components of SRS.  
b) Draw a labelled DFD for student registration system. (2x5)

**UNIT - II**

- V. Explain the test case criteria for black box and white box testing. Explain any two testing methods that falls under white box testing. (10)
- VI. a) Explain and Draw UML concept for use case diagram and sequence diagram. (3+3)  
b) Explain software maintenance and its metrics. (4)
- VII. Write short note on the following: Project planning Structure charts CASE standards Inspection and review. (10)

x-x-x