

Exam.Code:0916
Sub. Code: 6784

1058

B.E. (Computer Sciences 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) Discuss the concept of test-driven development.
- b) Compare sequence diagrams and collaboration diagrams.
- c) What do you mean by 1-CASE tools?
- d) Differentiate between component and deployment diagrams.
- e) Distinguish between the terms "System Engineering" and "Software Engineering".
- f) What do you mean by software crisis?
- g) Differentiate between Upper CASE and Lower CASE tools.
- h) Differentiate between coupling and cohesion.
- i) What is Smoke Testing?
- j) Differentiate between verification and validation. (10x1)

UNIT - I

- II. Compare Agile and Rational Unified Process Models. Discuss their **respective pros** and cons Also analyse their suitability for various types of projects **using real case studies.** (10)
- III. a) Demonstrate characteristics and organization of Software Requirement Specification (SRS) using a real life example of a project.
b) Discuss various levels of Capability Maturity Model **using suitable examples.** Also discuss its utility in the real word. (5,5)
- IV. a) Compare Structured Design with Object-Oriented **Design using** a single case study.
b) Analyse the use of DFDs in various **design and analysis paradigms** using suitable examples. (5,5)

P.T.O.

(2)

UNIT - II

- V. Explain and compare various cost estimation models using suitable examples. Discuss their suitability in different phases of software development life cycle. (10)
- VI. Analyse and compare various types of testing strategies and techniques corresponding to each phase of software engineering process using suitable examples. (10)
- VII. Discuss and formulate various software metrics for design, code, testing and maintenance. (10)

x-x-x