

# C.U.SHAH UNIVERSITY

## Winter Examination-2015

Subject Name : Software Engineering Methodologies

Subject Code : 5TE01SEM1

Branch : M.Tech (CE)

Semester : 1

Date : 31/12/2015

Time : 10:30 To 01:30

Marks : 70

### Instructions:

- (1) Use of Programmable calculator and any other electronic instrument is prohibited.
  - (2) Instructions written on main answer book are strictly to be obeyed.
  - (3) Draw neat diagrams and figures (if necessary) at right places.
  - (4) Assume suitable data if needed.
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### SECTION – I

- Q-1 Attempt the Following questions (7)**
- a. What is requirement engineering.
  - b. List down disadvantages of incremental model.
  - c. What is data modeling?
  - d. Define the term Stress Testing.
  - e. What is Software architecture?
  - f. What is test suit and test bed?
  - g. What is COTS?
- Q-2 Attempt all questions**
- (a) Explain why software reliability is important in software engineering? (5)
  - (b) Prepare Activity diagram for an Automated Teller Machine. (5)
  - (c) Explain Software Design Principles. (4)
- OR**
- Q-2 Attempt all questions**
- (a) Prepare Class diagram for E-commerce website. (5)
  - (b) Explain Component based software engineering. (5)
  - (c) Explain the concept of Reuse in software engineering. (4)
- Q-3 Attempt all questions**
- (a) Explain Rational Object Methodology. (7)
  - (b) Explain Water Sluice Model. (7)
- OR**
- Q-3**
- (a) Explain Clean room methodology for software development. (7)
  - (b) Explain the process of finding Cyclomatic complexity with suitable example. (7)



## SECTION – II

- Q-4**      **Attempt the Following questions**      **(7)**
- a. Define Error and Fault.
  - b. What is Control Coupling?
  - c. Define Software Reengineering.
  - d. What is Throw away prototyping?
  - e. What is equivalence partitioning?
  - f. What is metric in software engineering?
  - g. What is stub in unit testing?
- Q-5**      **Attempt all questions**
- (a) Explain Functional Requirement and Non Functional Requirement with example.      **(5)**
  - (b) Explain reasons for Software failure.      **(5)**
  - (c) What are the attributes of good test case? Prepare sample test case for Log in page of any website.      **(4)**
- OR**
- Q-5**      (a) Explain characteristics of good SRS.      **(4)**
- (b) Write a short note on Zachman's frame work.      **(5)**
  - (c) Why does software change occur? Explain types of change in software engineering.      **(5)**
- Q-6**      **Attempt all questions**
- (a) Explain COCOMO with its types.      **(7)**
  - (b) What is Cohesion? Explain different types of Cohesion with example.      **(7)**
- OR**
- Q-6**      **Attempt all Questions**
- (a) Explain Framework for web Engineering.      **(7)**
  - (b) Explain software architecture with structural partitioning.      **(7)**

