

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- VIth SEMESTER–EXAMINATION – MAY- 2012****Subject code: 160701****Date: 09/05/2012****Subject Name: Software Engineering****Time: 10:30 am – 01:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.

Q.1 (a) Explain incremental model for system development. Differentiate it with spiral model. **07**

(b) What is W5HH principle? Explain in detail. **07**

Q.2 (a) Draw the Data Flow Diagram with different levels for withdraw and deposit of money in a bank. **07**

(b) What is software prototyping? Explain its significance in software engineering with example. **07**

OR

(b) Define Quality for software. List and explain SQA activities **07**

Q.3 (a) Prepare an E-R diagram for a simple Library Management System. **07**

(b) Explain software testing strategy for conventional software architecture. Draw the spiral diagram showing testing strategies with phases of software development. **07**

OR

Q.3 (a) Prepare a state diagram for Microwave Oven showing all states of it. **07**

(b) How unit testing strategy works on a software module? What errors are commonly found during unit testing? **07**

Q.4 (a) Define FOUR Ps for project management and explain them in detail. **07**

(b) Explain the significance of User Interface (UI) in a system. Also explain the design model for UI. **07**

OR

Q.4 (a) List and explain requirement engineering tasks. **07**

(b) What is Cyclomatic Complexity? Define steps to find cyclomatic complexity using flow graph. **07**

Q.5 (a) What is activity diagram and swim-lane diagram? Draw activity diagram for Billing Counter of a shopping mall. **07**

(b) Draw and explain Process Framework. **07**

OR

Q.5 (a) How do we define software engineering? Draw and explain software engineering layers. **07**

(b) What is Object Oriented Design of a system? Create a class diagram showing all possible relationships between classes of a system. **07**
