

GUJARAT TECHNOLOGICAL UNIVERSITY**B. E. - SEMESTER – VI • EXAMINATION – WINTER 2012****Subject code: 160701****Date: 02/01/2013****Subject Name: Software Engineering****Time: 02.30 pm - 05.00 pm****Total Marks: 70****Instructions:**

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

- Q.1 (a) What is Software Engineering ? What is the role of software engineer 07
Compare Hardware and Software product characteristic.
- (b) Explain Spiral Model and its advantages. Compare Prototype 07
Model and Spiral Model.
- Q.2 (a) Explain Feasibility Study with the example of ATM Machine in 07
Banking System. Draw use case diagram of ATM Machine.
- (b) How to Collect requirement? Explain different methods to 07
Collect requirement. What is its importance in Software Engineering?
- OR
- (b) List five requirement of Library management System. Draw 07
DFD level-0 and DFD Level-1 for Library Management System.
- Q.3 (a) What is Software Measurement? How to Calculate Cost of 07
Software? Explain Software metrics used for S/w cost estimation.
- (b) Compare: Coupling and Cohesion. Explain Different types of 07
Coupling and its effect on software modules.
- OR
- Q.3 (a) What is the importance of User Interface? 07
Explain User Interface Design Rules with examples.
- (b) Explain Software Quality Assurance and its importance. Also Explain 07
Different CMM Level.
- Q.4 (a) What is Software testing? What is the role of software tester? 07
Compare: Black box testing and White Box testing
- (b) What is Software Reliability? What is the role of software 07
Maintenance in Software Product?
- OR
- Q.4 (a) Explain : Unit testing , cyclomatic complexity and Load testing 07
(b) What is Risk Management? Explain RMMM plan. 07
- Q.5 (a) Explain Software Project Management and W5HH Principle. 07
(b) Explain Functional Requirement and Non Functional Requirement 07
with example of Hospital Management System
- OR
- Q.5 (a) What are CASE tools? Explain its importance in SE. 07
(b) Explain Functional Requirement and Non Functional Requirement 07
with example of Mobile Device
