

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER- IV EXAMINATION – WINTER - 2017

Subject Code:3640003

Date: 02-01-2018

Subject Name: BASIC COMPUTER SCIENCE - 4

Time: 02:30 pm to 05:00 pm

Total Marks: 70

Instructions:

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

- Q.1 (a)** Define the following terms **07**
(1) Software Engineering
(2) Pair programming
(3) Stack Holders
(4) Open Close Principle (OCP)
(5) Defect
(6) V & V.
(7) Generalization
- (b)** Differentiate the following terms.
(1) Cohesion & Coupling **03**
(2) Alpha Testing & Beta Testing **04**
- Q.2 (a)** Explain the waterfall process model in detail with advantages and disadvantages. **07**
(b) List out different design concept and explain any six in details with suitable example. **07**
- OR**
- (b)** What do you mean by requirement Engineering? Describe the seven distinct tasks encompassed in requirement engineering. **07**
- Q.3 (a)** What are the various elements of good user interface design? Explain three golden rules for the user interface design. **07**
(b) What do you mean by Review? Explain Formal Technical Review (FTR) in details. **07**
- OR**
- Q.3 (a)** Explain the test strategies for conventional software in details. **07**
(b) What is an architectural style? Explain the various taxonomy of architectural styles. **07**
- Q.4 (a)** What is System Testing? Explain various types of system testing. **07**
(b) What is Testing? Explain White Box testing with its types **07**
- OR**
- Q.4 (a)** What is Project Management? Explain the various Project Management Spectrum in details. **07**
(b) Explain COCOMO II model of Software estimation. **07**
- Q.5 (a)** List out different functional requirements for Online Shopping Web portal with use case & DFD diagram. **07**
(b) Explain Class & Object diagram with its conventions and concept of links & Association of it. **07**
- OR**
- Q.5 (a)** Write a case study on University Management System with two UML diagram. **07**
(b) What is software project scheduling? Explain its principles to prepare effective scheduling. **07**
