Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA Integrated - SEMESTER–VI • EXAMINATION – SUMMER - 2017

Subject Code: 4460602 **Date: 02/05/2017**

Subject Name: Software Engineering

Time:10:30 am to 1:00 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)** Explain the following terms : **07**

a) OCP
b) Agile Process
c) Component Based Software Engineering (CBSE)
d) ASD
e) Alpha and Beta Testing
f) Archetypes
g) Time-Line Chart

(b) Explain waterfall and spiral process model. List the differences between them. **07**

Q.2 **(a)** What is requirement engineering? Describe the seven distinct tasks encompassed in requirement engineering. **07**

(b) List five functional requirement of hotel management system. Draw DFD level-0 and DFD level-1 for the same. **07**

OR

(b) Explain core principles that guide the software process of software engineering. **07**

Q.3 **(a)** Explain human factors that may affect in agile software development. **07**

(b) Explain the types of cohesion and coupling **07**

OR

Q.3 **(a)** Explain Architecture Design from Design pyramid for WebApp. **07**

(b) What is function based metrics? Explain in detail. **07**

Q.4 **(a)** State and explain the three golden rules that form the basis of interface design. **07**

(b) 1) Write a short note on Formal Technical Review (FTR). **04**

2) Explain any one category of Architecture style **03**

OR

Q.4 **(a)** What is white box testing? Discuss basis path testing in detail. **07**

(b) Describe the set of goals that are applicable to WebApp design. **07**

Q.5 **(a)** Explain unit testing and integration testing with suitable examples. **07**

(b) What is W5HH principle in project management **07**

OR

Q.5 **(a)** Explain COCOMO II model of software estimation. **07**

(b) List the Fundamental design concepts. Discuss modularity and functional independence **07**

****