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UNIVERSITY OF PUNE

[4364]-260

T. E. (Computer Engg.) Examination - 2013

Software Engineering. (2008 Course)

[Time: 3 Hours]

[Max. Marks: 100]

**Instructions:**

- 1 Answer Q1 or Q2, Q3 or Q4, Q5 or Q6 from Section I and Q7 or Q8, Q9 or Q10, Q11 or Q12 from Section II
- 2 Answers to the two sections should be written in separate answer-books.
- 3 Black figures to the right indicate full marks.
- 4 Neat diagrams must be drawn wherever necessary.
- 5 Assume suitable data, if necessary.

**SECTION - I**

- |     |   |   |    |
|-----|---|---|----|
| Q.1 | A | Explain the waterfall model with work products of each activity.                    | 08 |
|     | B | What is Software Engineering? Explain the layered approach to Software Engineering. | 08 |

**OR**

- |     |   |   |    |
|-----|---|---|----|
| Q.2 | A | Explain the following terms in brief.<br>1. Software Crisis<br>2. Legacy Software<br>3. Stakeholder<br>4. Software myth | 08 |
|     | B | Compare the agile and evolutionary process models with a specific process model for each.                               | 08 |

- |      |   |  |    |
|------|---|--|----|
| Q. 3 | A | Create the swimlane diagram for, monitoring of sensor in a Safehome security system' from control panel. | 08 |
|      | B | How use cases are used in modeling requirements?   | 06 |
|      | C | What are the workproducts of Elicitation?  | 04 |

**OR**

- |      |   |  |    |
|------|---|--|----|
| Q. 4 | A | Explain the elements of requirements model.    | 08 |
|      | B | How do you model the data objects?             | 06 |
|      | C | Write a CRC for the class 'Email system user'. | 04 |

Q. 5	A	Explain the following design concepts. i. Refinement ii. Modularity iii. Architecture	08
	B	Explain the elements of design model.	08
<b>OR</b>			
Q. 6	A	Compare data flow and data centered architecture.	08
	B	Give the architecture context diagram for room temperature monitor system.	08

## SECTION II

Q. 7	A	Explain the following. i. Smoke testing ii. Regression Testing	06
	B	Explain the debugging process.	08
	C	How do you ensure the completion of testing?	04
<b>OR</b>			
Q. 8	A	Explain the graph matrix and loop testing methods.	08
	B	How Object oriented testing differs from conventional testing strategies?	06
	C	What do you mean by acceptance testing?	04
Q. 9	A	Differentiate between measure and metric. What is GQM paradigm for software measurement?	08
	B	How do you calculate FP and how it is used in estimation of a software project?	08
<b>OR</b>			
Q. 10	A	Explain the role of people, process and product in project Management.	08
	B	How do you measure quality of software? Explain with any two quality metrics.	08
Q. 11	A	Explain the risk identification and assessment activities.	08
	B	How task network is used in scheduling of a software project?	08
<b>OR</b>			
Q. 12	A	Explain the software configuration management process.	08
	B	Explain how do you track the progress of an object oriented project?	08