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RV COLLEGE OF ENGINEERING®

(An Autonomous Institution affiliated to VTU)

V Semester B. E. Fast track Examinations July-19

Computer Science and Engineering

SOFTWARE ENGINEERING

Time: 03 Hours ***Maximum Marks: 100***

Instructions to candidates:

1. Answer all questions from Part A. Part A questions should be answered in first three pages of the answer book only.
2. Answer FIVE full questions from Part B.In Part B question number 2, 7 and 8 are compulsory. Answer any one full question from 3 and 4 & one full question from 5 and 6

PART A

1	1.1	Name the three feasibility studies conducted in requirement analysis.	02
	1.2	"Consider a system where, a heat sensor detects an intrusion, and alerts the security company". What kind of requirement the system providing?	02
	1.3	Differentiate between system engineering process and software engineering process.	02
	1.4	Briefly discuss the meaning of "requirement elicitation" in software engineering.	02
	1.5	If requirements are easily understandable and defined, then which model is best suited?	02
	1.6	Compare corrective maintenance with adaptive maintenance.	02
	1.7	List the responsibilities of inspector and reader during the inspection process.	02
	1.8	The key advantage of re-engineering a software system are _____ and _____.	02
	1.9	The strong cohesive group suffers from _____ and _____ problems.	02
	1.10	Re-running an existing set of test is called _____.	02

PART B

2	a	Narrate the key challenges faced by software engineering.	04
	b	List and explain the key attributes of a good software.	04
	c	Illustrate Rapid Unified Process (RUP) indicating work flows and process iterative developments with incremental delivery approach.	08
3	a	Illustrate with a neat diagram, requirement engineering process.	04
	b	Construct a DFD of a system that "pays workers" with suitable notations.	04
	c	Briefly discuss four models of a system supported by structured methods.	08
		OR	

4	a	Summarize various phases of $SDLC$ in waterfall model.	08
	b	Describe the various activities involved in risk management.	04
	c	Compare Top down estimation approach with bottom-up estimation approach.	04
5	a	Discuss the relevance of design concept "cohesion". How can you classify cohesion into different types? Briefly discuss communication cohesion.	08
	b	Narrate five criteria that enable us to evaluate a design method with respect to its ability to define a effective modular system.	08
		OR	
6	a	Differentiate between object oriented design and function oriented design.	04
	b	"Coupling and cohesion are two quantitative criteria of functional independence" Justify.	08
	c	Compare flowchart and structure chart.	04
7	a	Illustrate with a neat diagram, different stages available in testing process.	08
	b	List essential characteristics of software testing.	04
	c	Compare black-box testing with white box testing.	04
8	a	Define the term "Agile methods". Discuss the principles of Agile methods.	06
	b	Identify and discuss the key strategies of clean room software development.	06
	c	Illustrate extreme programming technique with an example.	04