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Question Paper Code: 21384

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2015.

Fifth Semester

Computer Science and Engineering

CS 2301/CS 51/10144 CS 502 — SOFTWARE ENGINEERING

(Regulations 2008/2010)

(Common to PTCS 2301/10144 CS 502 — Software Engineering for B.E. (Part-Time) Fifth Semester CSE – Regulations 2009/2010)

Time: Three hours

Maximum: 100 marks

Answer ALL questions.

PART A --- $(10 \times 2 = 20 \text{ marks})$

- Differentiate between verification and validation.
- State the advantages and disadvantages of the water fall model.
- 3. What is a data dictionary?
- 4. What is a volatile requirement?
- 5. What are called as design heuristics?
- 6. What do you understand by "Real Time Executive"?
- 7. What is "Cyclomatic Complexity"? State its primary use.
- 8. Between "Statement Coverage and Branch Coverage", which is a stronger criteria? Why?
- 9. What is earned value analysis?
- 10. Differentiate between preventive and corrective maintenance.

PART B — $(5 \times 16 = 80 \text{ marks})$

11.	(a)	(i)	Explain the systems engineering hierarchy with a suitable dias	The state of the s
		(ii)	Explain the RAD development model and state its merits demerits.	(9) and (7)
88			Or	
	(b)	(i)	Give an overview of the business process engineering w	ith a
			diagram.	(8)
		(ii)	Outline the features of spiral model.	(8)
.12.	(a)	(i)	What are called as non functional requirements? Explain in de-	tail.
				(8)
		(ii)	Explain the use of data flow models with an example.	(8)
		ľ.		
	71.1	(2)	Or	(4)
	(b)	(i) (ii)	Explain the importance of software prototyping.	(7)
		(11)	Describe the state machine behavioral model with a neat diag	
i.				(9)
13.	(a)	(i)	Explain the salient features of data acquisition systems.	(8)
		(ii)	Explain the various architectural styles in brief.	(8)
				39
			Or	
	(p)	(i)	Explain the generic architecture of a monitoring and co	
		er 15	system.	(9)
120		(ii)	Explain the concept of modularity and its importance in desi	
			software.	(7)
14.	(a)	(i)	Explain the equivalence class partitioning method with an exar	nple.
				(8)
		(ii)	Explain the concept of data flow based testing.	(8)
			Or	
	(b)	(i)	Explain the use of drivers and stubs in unit testing.	· (6)
	(0)	(ii)	Explain "Regression Testing" and its importance in practice.	(6)
		(iii)	Explain the importance of validation testing.	(4)
				1-7
15.	(a)	(i)	Explain the salient features of the COCOMO model.	(8)
		(ii)	Outline the importance of "Project Scheduling and the use of C	
			charts".	(8)
			Or	
	(b)	Winds	te short notes on the following :	
	(0)	(i)	Functions of software configuration management	(7)
		(ii)	Risk management	(5)
		100000000000000000000000000000000000000	CASE Tools	(4)