~		GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-V(New) • EXAMINATION – WINTER 2016	0.14.4.12.0.4.5
•			9/11/2016
•		Name:Software Engineering	
Time	e:10:	30 AM to 01:00 PM Total 1	Marks: 70
Instru			
		Attempt all questions. Make suitable assumptions wherever necessary.	
		Figures to the right indicate full marks.	
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Q.1		Short Questions	14
	1	What is the difference between Verification and Validation?	
	2	What is unit testing?	
	3	What is SDLC?	
	4	Explain Software as a Product.	
	5	Software does not "wear out" but it does deteriorate. Why?	
	6 7	What is the difference between system and Application software?	
	8	Context diagram represents system as a whole. True / False. What is Task set?	
	9	What is the difference between uncertainty and loss?	
	10	What is the use of debugging?	
	11	What is Security testing?	
	12	What is the predictable risk?	
	13	What is data object in data modeling?	
	14	What is data dictionary?	
Q.2	(a)	What is Software Engineering? What is Process? What is Product?	03
~ ·-	(b)	Compare Incremental and Waterfall Process Model. Expla	
	. ,	Incremental Model in detail.	
	(c)	Explain W ⁵ HH Principle.	07
		OR	
	(c)	Explain 4 P's of Effective Project Management in detail.	07
Q.3	(a)	What is Cyclomatic Complexity? Define steps to find cyclomatic	tic 03
		complexity using flow graph.	
	(b)	Explain Spiral Process Model and its advantages.	04
	(c)	What is Risk Management? Explain RMMM plan.	07
0.2	(0)	OR Evaloin Software Engineering as a Lavered Technology	03
Q.3	(a) (b)	Explain Software Engineering as a Layered Technology. Discuss umbrella activities and its role in software development li	
	(D)	cycle.	11C UT
	(c)	What is the importance of User Interface? Explain Concept of UI	07
0.4	(a)	Droporo on E. D. diagram for a Hagnital Management System	03
Q.4	(a) (b)	Prepare an E-R diagram for a Hospital Management System. Discuss all process frame work activities of software engineering.	03 04
	(c)	Differentiate Black box testing and White box testing. Explain any o	
	(0)	technique to carry out each testing.	
		OR	

	(c)	What is Software Quality Assurance? Explain various factors that affect Software Quality.	07
Q.5	(a)	List out Testing Attributes and explain any two in detail.	03
	(b)	Differentiate Structured and object oriented design. List out advantages and disadvantages of object oriented design.	04
	(c)	What is Software Testability? List out and explain characteristics of s/w testability.	07
		OR	
Q.5	(a)	What is System testing and Recovery Testing?	03
	(b)	Draw context diagram and data flow diagram (DFD) for Library Management System.	04
	(c)	Compare: Coupling and Cohesion. Explain Different types of Coupling and its effect on software modules.	07
