N Subje Subje	1E - S ect C	GUJARAT TECHNOLOGICAL UNIVERSITY SEMESTER- I (New course)• REMEDIAL EXAMINATION – SUMMER 2015 dode: 2714202 Date:15/05/2015	5
Time: 10:30 am to 1:00 pm Total Marl			
Instructions:			
 Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 			
Q.1	(a) (b)	Compare Constructive Algorithm and Interactive Algorithm. Discuss in brief Principle Difference & Similarities between KL & FM	07 07
Q.2	(a)	Explain in brief with suitable example Slicing Floorplan and Non Slicing Floorplan.	07
	(b)	Define followings: (i) Space Complexity (ii) Time Complexity (iii) Hard Problem (iv) Polynomial Time (v) Net (vi) Pin (vii) Cell	07
		OR	
	(b)	Explain Following in terms of Floorplan:(i) Rectangular Dissection (ii) Slicing Structure (iii) Slicing Tree (iv) Wheel(v) Dead space (vi) Soft Blocks (vii) Hard Blocks	07
Q.3	(a) (b)	Explain with suitable figure: (i) Horizontal Polar Graph (ii) Vertical Polar Graph. Discuss Simulated Annealing Algorithm and its importance in VLSI. OR	07 07
Q.3	(a) (b)	Discuss in brief with suitable example desirable path and shortest path. Explain in detail Min-Cut Placement Algorithm.	07 07
Q.4	(a) (b)	Explain Wire length estimation techniques in detail. How to reduce running time for Lee Algorithm. OR	07 07
Q.4	(a) (b)	Explain in detail: Mikami-Tabuchiøs Algorithm. Compare Maze Routing Algorithm and Line Search Algorithm.	07 07
Q.5	(a)	 Explain Following Graph Representation in detail. (a) Adjacency Graph (b) Channel Intersection Graph (c) Channel Position Graph 	07
	(b)	Discuss in brief: Channel Routing, Problem Definition and its objectives. OR	07
Q.5	(a)	What is polish expression? Explain with an example how it can be useful in Floorplan.	07
	(b)	Explain following graph using suitable example(i) Channel Connectivity Graph (ii) Bottleneck Graph (iii) Grid Graph	07
