Code: 9D06206b

M.Tech II Semester Supplementary Examinations August/September 2018

ALGORITHMS FOR VLSI DESIGN AUTOMATION

(Digital Systems and Computer Electronics)

(For students admitted in 2013, 2014, 2015 & 2016 only)

Time: 3 hours Max. Marks: 60

Answer any FIVE questions

All questions carry equal marks

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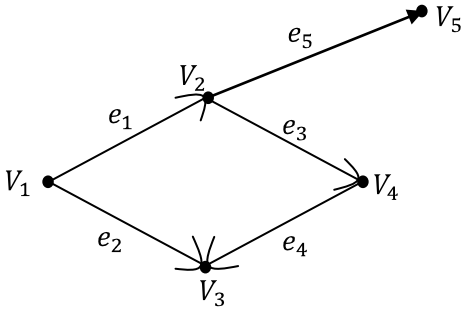
1 (a) For the graph shown below, determine the edges using depth – first search algorithm.

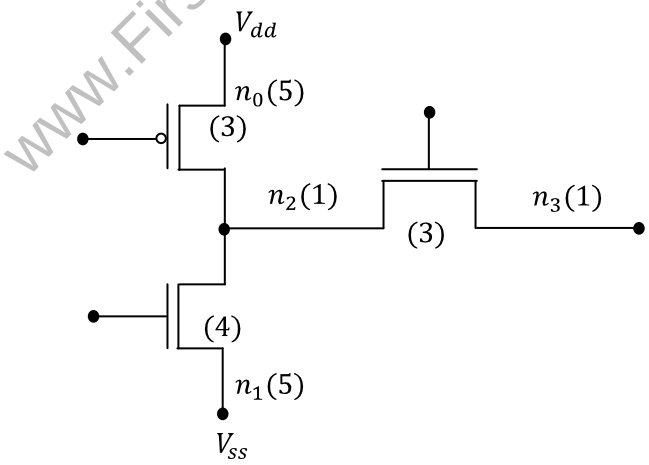


(b) Write the pseudo code for the breadth – first search algorithm.

2 Differentiate between backtracking and branch & bound algorithm. Also write the pseudo code for both.

3 (a) Write the pseudo code for longest path algorithm.
(b) Explain, how graph – theoretical formulation is framed.

4 (a) Write a pseudo code of the event – driven simulation function.
(b) Illustrate the switch level simulation algorithm for the following circuit.



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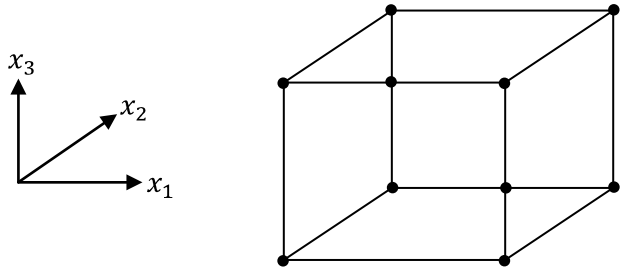
5 Write truth table function for the following set Boolean function f in B^3 and also evaluate step by step using ROBDD – Building algorithm.



6 Explain in detail force – directed scheduling.

7 With neat diagram, explain physical design cycle of FPGA.

8 Explain multiple stage routing.

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