Reg. No. : | | | | | | | | | | |

Question Paper Code: 52271

M.E. DEGREE EXAMINATION, JUNE 2016

Second Semester

VLSI Design

15PVL201 - CAD FOR VLSI CIRCUITS

(Regulation 2015)

Duration: Three hours Maximum: 100 Marks

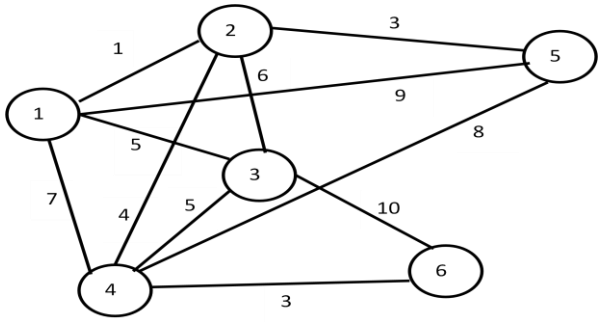
Answer ALL Questions

PART A - (5 x 20 = 100 Marks)

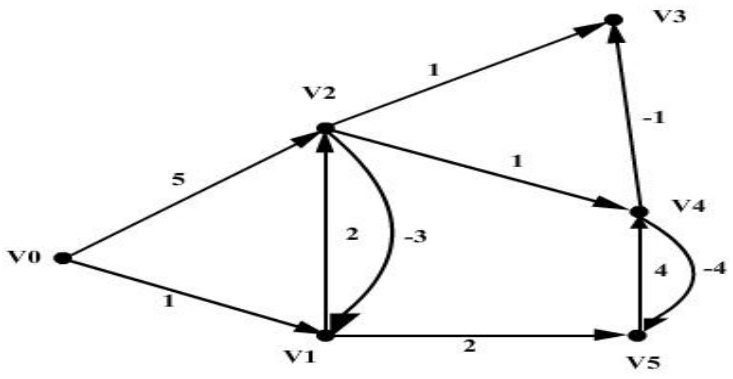
1. (a) Elucidate integer linear programming for solving combinatorial optimization problem. (20)

Or

(b) What is Spanning tree? Implement the minimum spanning tree algorithm for the following graph. (20)

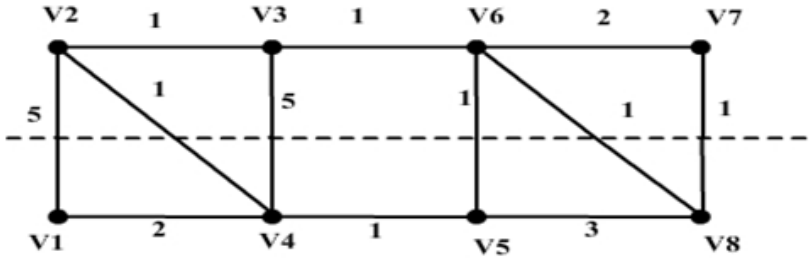


2. (a) Use bellman-ford algorithm for the directed graph shown in below figure. (20)



Or

(b) Apply K-L algorithm to partition the given graph shown in below figure for minimum cut cost. (20)



3. (a) Elucidate the different steps in computing the Steiner tree from spanning tree with pseudo code. (20)

Or

(b) Illustrate the left edge algorithm for channel routing with suitable example and compute the time complexity of the algorithm. (20)

4. (a) Draw the diagram of a CMOS 2 input NAND gate and assign suitable strength values. Illustrate the switch level simulation algorithm when applied to the above circuit. (20)

Or

(b) What is ROBDD? How is an OBDD transformed to ROBDD? (20)

5. How the assignment is done by (i) Interval and circular arc graph coloring (ii) Clique partitioning. (20)

Or

(b) List the different scheduling algorithms and explain any two with example. (20)

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