M. Tech.-III (Electronics V.L.S.I.) (CBCS – 2015 Course) :
SUMMER - 2019
SUBJECT- ELECTIVE-I: c) ALGORITHMS FOR VLSI DESIGN AUTOMATION

Day: Friday
Date: 17/05/2019
S-2019-3477
Time: 11.00 AM TO 02.00 PM
Max. Marks: 60

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the right indicate **FULL** marks.
3) Draw diagrams **WHEREVER** necessary.
4) Answer to both the sections should be written in **SAME** Answer book.

SECTION-I

Q.1 **a)** With reference to Graph Theory, Define following: **(05)**
i) Directed Graph
ii) Hyper Graph
iii) Bipartite Graph

b) Which are the algorithms used in physical design? Explain in brief. **(05)**

OR

Q.1 Considering Graph algorithms, how will you define: **(10)**
i) Depth First Search
ii) Breadth-First Search

Q.2 How will you classify partitioning algorithms? Explain any one partitioning algorithm. **(10)**

OR

Q.2 Explain metrics allocation method. **(10)**

Q.3 Classify Placement algorithms. Discuss Placement algorithms in brief. **(10)**

OR

Q.3 What is Constraint based Floorplanning? Explain in brief. **(10)**

SECTION-II

Q.4 What are Line-probe algorithms? Explain in brief. **(10)**

OR

Q.4 Explain Steiner Tree based algorithms. **(10)**

Q.5 Explain Switch box routing. **(10)**

OR

Q.5 Classify and discuss Routing algorithms in brief. **(10)**

Q.6 Discuss Cell models and Two layers over the cell routers. **(10)**

OR

Q.6 Explain problem formulation with reference to compaction. **(10)**

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