Code No.: **204E4**

MR12

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

(Affiliated to JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD)
Maisammaguda, Dhulapally,(Post Via kompally), Secunderabad-500 100.

IV B.Tech II sem Supplementary Examinations, APRIL - 2017

SUBJECT: **CAD FOR VLSI**

Branch: **ECE**

Time: **3 Hours** Max Marks: **75 M**

Answer any FIVE of the following **5 X 15 M = 75 M**

1. A) Write verilog module for 4X2 Priority Encoder with test bench. 7M
   B) Discuss net, gate and tri-state delays with examples and Verilog code? 8M

2. A) What are the ways of checking the correctness of an IC without actually fabricating it? 10M
   B) What are the files generated by Synthesis operation? Explain. 5M

3. A) Write two or more parameters used in generating Synthesis Circuits. Explain Synthetic Circuit generation process. 8M
   B) What is state machine synthesis? Write a program in Verilog HDL using state machine synthesis for a sequence detector that detects '1011'. 7M

4. A) Explain the steps involved in event driven simulation flow. 10M
   B) Compare compiled and event simulators. 5M

5. Explain in detail any one of the layout algorithms. 15M

6. What are the limitations of Conventional Simulation Methodology? Explain cycle based simulation and static timing analysis. 15M

7. Explain the testing procedure of combinational circuit with a D algorithm. 15M

8. Discuss in detail about Path Oriented Decision Making Algorithm with an example. 15M

Code No.: **204C2**

MR12

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IV B.Tech II sem Supplementary Examinations, MARCH – 2017

SUBJECT: **Satellite Communication**

Branch: **ECE**

Time: **3 Hours** Max Marks: **75 M**

Answer any FIVE of the following **5 X 15 M = 75 M**

1. a)Explain in detail about India's participation in other International Communication Satellite Systems. (7)
   b) explain basic Frequency allocations for Satellite Services & its Application (8)

2. a) briefly discuss Kepler's Three Laws of Planetary Motion & determine azimuth Angle (7)
   b) how Look Angle can be Determined & also explain Elevation Angle Calculation (8)

3. Explain these two subsystems with diagram
   a)Attitude and Orbit Control System (AOCS) (7)
   b) Telemetry, Tracking, Command and Monitoring(TTCM) (8)

4. Write a short notes on
   a) Basic Transmission Theory (5)
   b)G/T Ratio for Earth Stations (5)
   c)Link Budgets (5)

5. a) compare Frequency division multiple access & Time division Multiple Access (TDMA)
   b) How Synchronization in TDMA Networks is occurring explain? (7+8)

6. a) Describing the Orbit of a Satellite and determine the equation? (7)
   b) Digital Modulation and Demodulation used in satellite communication. Explain? (8)

7. a) discuss different types of Orbit Considerations with examples? (7)
   b) describe how to Determine Optimum Orbital Altitude (8)

8. write a short notes on a) Satellite signal acquisition (5)
   b)GPS Navigation Message (5)
   c)Differential GPS. (5)