Code No.: 20432 MR12

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

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

IV B.TECH I SEM SUPPLEMENTARY EXAMINATIONS, APRIL – 2017

SUBJECT: **VLSI Design**

(BRANCH: **IT**)

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

Answer any 5 questions **5 x15=75M**

1. a) Explain the CMOS technology with n well process? **[7M]**
   b) Write briefly the comparision between CMOS and Bipolar Technology? **[8M]**
2. a) Explain the Bi-COMS Inverter with neat sketches **[7M]**
   b) Explain the importance of pull up transistor and the difference between different pull up transistor **[8M]**
3. a) Design a stick diagram for equation Y = $\overline{((AB)+C)}$ **[7M]**
   b) Design a layout for Y = $\bar{A}B + C\bar{D}$ by using CMOS Schematic's. **[8M]**
4. a)Design the stick diagram for EX-OR gate **[8M]**
   b) Design the OR gate layout **[7M]**
5. Design a counter for following specifications and write the equivalent pseudo code. When device lock frequency =50 MHz . Derive the device to work for 125 KHz load circuit **[15M]**
6. a) Explain the out bit DRAM **[8M]**
   b) Explain the serial Access Memories wit neat sketches **[7M]**
7. a) Explain the parameters which are influencing low power design. **[8M]**
   b) Design the PLA for the following functions? **[7M]**
   $F_1 = \Sigma(1,2,5,7,9)+\varphi(13,15)$
   $F_2 = \Sigma(3,4,7,8,11)+\varphi(11,12)$
   $F_3 = \Sigma(1,2,3,4,9,10)+\varphi(6,7)$
8. a) Explain any one of the technique of system-level test technique **[8M]**
   b) Explain the need of testing **[7M]**

Code No.: 20518

MR12

MALLA REDDY ENGINEERING COLLEGE(AUTONOMOUS)

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

IV B.TECH I SEM SUPPLEMENTARY EXAMINATIONS, APRIL - 2017

SUBJECT: **Object Oriented Analysis And Design**

(BRANCH: **IT**)

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

Answer any **Five** Questions 5x15=75

1. (a) What do you mean by component? What is the difference between component and classes?

   (b) What are different kinds of components? Explain. [8+7]

2. Discus briefly about the UML diagrams which can be used to model the behavioral aspects of a system. [15]

3. State and explain the common modeling techniques of class diagram. Give appropriate examples. [15]

4. (a) Why is it necessary to have a variety of diagrams in model of a system?

   (b) Write short notes on Forward & Reverse engineering in use case diagrams. [7+8]

5. Give activity diagram for Library management. [15]

6. (a) Draw the object interaction for unified library application.

   (b) List the events and signals in unified library application. [7+8]

7. Write a short note on components, classes and interfaces. [15]

8. (a) Explain the case study use case diagram for library management.

   (b) Explain the activity diagram [10+5]