

Code No.: EC57204PE

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H.T.No.

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CMR ENGINEERING COLLEGE: : HYDERABAD

UGC AUTONOMOUS

I-M.TECH-II-Semester End Examinations (Regular) - September- 2022

DESIGN FOR TESTABILITY

(VLSI System Design)

[Time: 3 Hours]

[Max. Marks: 70]

- Note:** 1. Answer any *FIVE* questions. Each question carries 14 marks.  
2. All questions carry equal marks.  
3. Illustrate your answers with NEAT sketches wherever necessary.

5X14=70

1. a) Discuss in detail about levels of fault models. [7M]  
b) Explain the role of testing in VLSI System design. [7M]
2. a) Illustrate different algorithms for True-Value simulation. [7M]  
b) Write a short note on ATPG. [7M]
3. a) Differentiate Scan Design and Partial-Scan Design. [7M]  
b) Explain the variations of scan in detail. [7M]
4. a) Discuss about the steps involved in BIST process. [7M]  
b) Write a short note on Circular Self Test Path System. [7M]
5. a) Explain the need of Boundary Scan Standard. [7M]  
b) Discuss about boundary scan test instructions. [7M]
6. a) Discuss how VLSI technology trends affecting testing. [7M]  
b) Compare different types of Testing in VLSI system Design. [7M]
7. a) Illustrate different algorithms for fault simulation. [7M]  
b) Write a short note on Test evaluation. [7M]
8. a) What are the high level testability measures? [7M]  
b) Explain Ad-Hoc DFT methods in detail. [7M]