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Total No. of Pages : 01

Total No. of Questions : 08

M.Tech (Embedded system) (Sem.-3)

**SYSTEM ON CHIP**

Subject Code : MTED-308

Paper ID : [74787]

Time : 3 Hrs.

Max. Marks : 100

**INSTRUCTIONS TO CANDIDATES :**

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.

1.
  - a) Discuss the overview of the SOC design process.
  - b) Explain the flow of SOC design Approach.
2.
  - a) Explain the processor architecture and its implementation with neat sketch.
  - b) Give overview of SOC external memory.
3. What are the basic cache organizations? Explain in detail. Also discuss split and multilevel caches.
4.
  - a) List the standard SOC buses. Explain AMBA buses.
  - b) Explain the concept of PLB-processor local bus and OPB-on chip peripheral bus.
5. Explain system level, block level and hardware/ software co-verification process in detail.
6.
  - a) Describe the Architecture of customizing instruction processor.
  - b) Explain reconfigurable Interconnects.
7.
  - a) Discuss the application study of image compression.
  - b) Discuss the application study of AES algorithm.
8. Write short notes on the following (ANY TWO) :
  - a) System architecture and complexity
  - b) SOC memory system
  - c) Antenna for SOC