

R09

Code No: C5710

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.TECH I SEMESTER EXAMINATIONS APRIL/MAY 2012
MICRO ELECTROMECHANICAL SYSTEMS
(VLSI SYSTEM DESIGN)**

Time: 3hours

Max.Marks:60

**Answer any five questions
All questions carry equal marks**

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1. Write a brief note on MEMS architecture.
2. Write about Micro fabrications and micro machining.
3. Describe the response of MEMS for
 - a) Thermal
 - b) Electrical
 - c) Optical
 - d) Magnetic stimuli
 - e) Power dissipation.
4. Discuss in detail the MEMS application in frequency converters, wave shaping and RF Switches for modulation.
5. Write a note MEMS sensor for measurement of pressure, force and temperature.
6. Describe the process of three structure MEMS and also state at least four applications which makes use of the mentioned technology.
7. Write a brief note on MEM circuits & structures AND, OR, NAND, NOR, Exclusive OR Gates.
8. Describe the Process flow of Thin and thick film technologies for MEMS.

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