

Roll No.

22148

**M. E. 2nd Semester (E.C.E.)
Examination – December, 2014
ELECTRONICS SYSTEM DESIGN**

Paper : MEEC-502

Time : Three hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any *five* questions.

- | | |
|--|----|
| 1. (a) Explain T flip-flop along with truth table. | 10 |
| (b) Design of output decoders. | 10 |
| 2. (a) Explain S-R flip-flop. | 10 |
| (b) Describe binary cell and bouncing switch. | 10 |
| 3. (a) Explain tri-state bus system. | 10 |
| (b) Discuss CPLD and FPGA in detail. | 10 |
| 4. (a) Explain XOR and AND-OR inverter gates. | 10 |
| (b) Explain PLA & PAL based design. | 10 |

5. (a) Explain timing and frequency consideration during controller design. 10
- (b) Explain clock & power supply requirements during controller design. 10
6. (a) Explain asynchronous finite state machines and its scopes. 10
- (b) Discuss about RAM and ROM. 10
7. Discuss multi input system controller Design from design phase to documentation. 20
8. Write short note on : 20
- (a) Multiplexers in system controllers.
- (b) Hazards in circuits developed by MEV method.
-