



M 26154

Reg. No. :

Name :

**VII Semester B.Tech. Degree (Reg./Sup./Imp. – Including Part Time)
Examination, November 2014
(2007 Admn. Onwards)**

PT 2K6/2K6 EC 701 : MICROELECTRONICS TECHNOLOGY

Time : 3 Hours

Max. Marks : 100

PART – A

- I. a) Briefly explain MTF.
- b) Explain subtractive etching and additive etching with neat diagrams.
- c) What is subthreshold conduction ?
- d) Explain the VTC of pnedo nMOS inverter.
- e) Briefly explain different layers of MOS.
- f) Briefly explain MOS capacitor.
- g) Why device isolation is required ? Explain junction isolation.
- h) Briefly explain electron spin transport. **(8×5=40)**

PART – B

- II. a) Explain three types of photolithographic printing techniques. **15**
- OR
- b) With a neat diagram, explain CVD process for Si in detail. **15**
- III. a) With proper diagrams explain the process detail of nMOS transistor. **15**
- OR
- b) Explain with neat diagram the process sequence of Bi CMOS transistor. **15**

P.T.O.