DRR-3241
Third Year B. Sc. (Sem. VI) (Electronics) Examination
March / April - 2016
Integrated Circuit Technology
(Generic Elective for Electronics)

Time : 2 Hours] [Total Marks : 50

Instructions : (1)

(2) Figure on the right indicates full marks
(3) All symbols and abbreviations have their usual meaning
(4) Non-programmable calculators are allowed
(5) Q.1 is compulsory
(6) Assume data if necessary

1 Write Very Short Answers [8]
   1. What is MGS and what is its purity
   2. What is a silicon wafer
   3. What does MOS and CMOS stands for
   4. What is spin coating

2 A Explain the Czochralski method of crystal growing [8]
   B Explain the method of silicon shaping and wafer preparation [6]
   OR

2 A What is X-ray lithography? How is it advantageous over [8]
   photolithography
   B Explain the diffusion ion implantation [6]

3 A Explain how semiconductor diodes integrated [8]
   B What is wafer sorting and how is it done [6]
   OR

DRR-3241] 1 [Contd...
3. A Explain the monolithic MOSFET fabrication [8]
   B Explain the IC fabrication and pre fabrication stages [6]

4. Write Short Notes (Any Two) [14]
   1. Ion beam lithography
   2. Plasma etching
   3. Fabrication of bipolar junction transistor
   4. Metallization