



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)

नीचे दशविक \leftarrow निशानीवाणी विगतो उत्तरवही पर अवश्य कभवी. Fillup strictly the details of \leftarrow signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
\leftarrow THIRD YEAR B. SC. (SEM. VI) (ELECTRONICS)	<input type="text"/>
Name of the Subject :	<input type="text"/>
\leftarrow INTEGRATED CIRCUIT TECHNOLOGY	<input type="text"/>
\leftarrow Subject Code No. : <input type="text" value="3"/> <input type="text" value="2"/> <input type="text" value="4"/> <input type="text" value="1"/> \leftarrow Section No. (1, 2,.....) : <input type="text" value="NIL"/>	<input type="text"/>
	Student's Signature

- (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

- 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
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