Oxide Characterization

SHRI MATA VAISHNO DEVI UNIVERSITY, KATRA
School of Electronics & Communication Engineering
B. Tech. ECE Minor-I (Even) 2022-23

Entry No: | | | | | | | | | |

Total Number of Pages: [01]

Date: 20th Feb 2023

Total Number of Questions: [05]

Course Title: IC Fabrication & VLSI
Course Code: ECL3130

3+2.5+2.5+2.5+3
11

Time Allowed: 1.5 Hours

Max Marks: [20]

Instructions / NOTE

i. **Attempt All Questions.**
ii. **Support your answer with neat freehand sketches/diagrams, wherever appropriate.**
iii. **Assume an appropriate data / information, wherever necessary / missing.**

	Section – A (1*5 Marks)		
Q1.	**Answer in one word only.** a) Class 1 Clean room corresponds to _____ b) Field Oxide can be grown using _____. c) Intel processor is designed using _____. d) The process of converting MGS to EGS is _____. e) The measurement of oxide thickness can be achieved using_____	**[1*5] =Marks 5**	CO1, CO2, CO1, CO1,
	Section – B (15 Marks)		
Q2.	How it is decided whether to go for dry or wet oxidation in fabrication process?	**Marks 4**	CO2
Q3.	What is the technique used to visually identify the wafer for its type and orientation?	**Marks 3**	CO1
Q4.	What are the steps of designing in Digital design?	**Marks 4**	CO1
Q5.	How is Silicon wafer prepared from MGS in the industry?		CO2

After successful completion of this course students will be able to achieve this

Course Outcomes

- **CO1** • **Understand the fabrication process of IC technology**
- **CO2** • **Analysis of the operation of MOS transistor**
- **CO3** • **Analysis of the physical design process of VLSI design flow**
- **CO4** • **Analysis of the design rules and layout diagram**
- **CO5** • **Design of Adders, Multipliers and memories etc**