NOS Code and Name	Question Type	Question Count	Question Text	Answer Choice 1	Answer Choice 2	Answer Choice 3	Answer Choice 4	Correct Answer	Difficulty Level (Easy/Medium /Difficult)
ELE/N1412: Advanced Hands- on Training on Semiconductor Process Technologies	D.C.B	1	Which intrinsic property of silicon primarily determines the concentration of thermally generated charge carriers at elevated wafer processing temperatures?	Crystal orientation	Bandgap energy	Lattice constant	Oxide growth rate	B	Easy
	D.C.B	2	What is the main purpose of a cleanroom in semiconductor fabrication?	To reduce electrical resistance	To control particle contamination, temperature, and humidity	To store wafers safely	To increase wafer size	B	Easy
	L.C.B	3	Which technique is used to remove contaminants from a wafer surface?	Sputtering	Ultrasonic cleaning and DI water rinse	Photolithography	Metallization	B	Medium
	L.C.B	4	Which parameter is most critical during spin coating of photoresist?	Exposure time	Wafer thickness	Spin speed and duration	Temperature of the cleanroom	C	Medium
	R	5	During wafer fabrication, how can you detect defects on the wafer?	Visual inspection and optical microscopy	Heating oven analysis	Using a refrigerator	Spin coating again	A	Hard
	S.B	6	What is the function of IV-CV measurement in semiconductor devices?	To clean the wafer	To characterize electrical properties such as current, voltage, and capacitance	To deposit metal layers	To coat photoresist	B	Easy
ELE/N1413: Design & Packaging Techniques - Semiconductor Process Technologies	A-R	7	Which factor is most important when selecting a package for a semiconductor device?	Device type, thermal management, and application	Color of the wafer	Cleanroom size	Photoresist type	A	Easy
		8	How does packaging affect the performance of a semiconductor device?	It only increases the size of the device	It protects the device, reduces parasitic effects, and improves reliability	It changes the wafer thickness	It is only for aesthetic purposes	B	Easy
	L.C.B	9	Which of the following is a common packaging type for integrated circuits?	DIP (Dual In-line Package)	Ultrasonic cleaner	Photolithography mask	DI water generator	A	Easy
	M.T	10	**Match the simulation software in Column A with the correct application in Column B:** **Column A:** 1. ANSYS Icepak 2. Cadence Allegro Package Designer 3. COMSOL Multiphysics 4. Synopsys Sentaurus **Column B:** A. Thermal management of advanced IC packages B. Full-wave electromagnetic simulation and multiphysics modeling C. IC package layout and routing for high-speed designs D. Device-level semiconductor process and physics simulation	1-C, 2-D, 3-B, 4-A	1-B, 2-A, 3-C, 4-D	1-A, 2-C, 3-B, 4-D	1-A, 2-D, 3-C, 4-B	C	Hard
	D.C.B	11	Which section of a technical report summarizes the key findings?	Introduction	Conclusion	Appendix	Abstract	D	Medium
	D.C.B	12	Which section typically contains tables, graphs, and simulation outcomes?	Results and Discussion	Cover Page	References	Title Section	A	Easy
	D.C.B	13	In a packaging report, thermal simulation screenshots are placed under:	Literature Review	Results section	Title page	Summary	B	Easy
DGT/VSQ/N0102: Employability Skills (60 Hours)	D.C.B	14	How can a semiconductor process engineer demonstrate integrity in a cleanroom?	Ignore small process deviations	Report process deviations honestly and follow protocols	Leave tasks incomplete for others to check	Handle wafers roughly to save time	B	Easy
	R	15	How should you report a defect on a wafer to a senior engineer over the phone?	"Wafer has problem. Fix it."	"Wafer is fine, don't worry."	"We noticed a defect on wafer X; please advise the next steps."	"Not sure about wafer, maybe someone else can check."	C	Medium
	L.C.B	16	Which statement best describes a career mindset in semiconductor process technology?	Completing daily tasks without learning new skills	Continuously improving skills, learning processes, and planning growth	Avoiding responsibilities to save effort	Only focusing on the current task without long-term planning	C	Hard
	M.C	17	Which is an example of treating a role as a job rather than a career?	Learning new wafer fabrication techniques to advance	Performing only assigned tasks without learning new skills	Following process protocols while planning for promotions	Documenting process improvements and sharing with team	B	Medium
		18	Which option shows the most reliable way for a semiconductor technician to search for a job?	Asking random social media groups for job openings	Searching on verified job portals like Naukri/Indeed and checking recruitment agencies	Waiting for someone to inform you about vacancies	Applying only through unknown messages received on WhatsApp	B	Hard
		18							