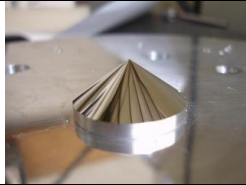
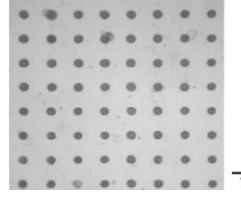



Micro and Nano Manufacturing (MCL 331)	B.Tech., MINOR
Max. Marks :40	Time: 8.30a.m -9.30am
Neat sketches and drawings are necessary (wherever applicable). Follow the instructions sent by e-mail.	

1	Define critical depth. Explain the methods to enhance the critical depth while machining soda glass, with reasoning.				2+6	
2	Write the product and manufacturing process				6	
	S.No		Material	Name of the Product		Manufacturing process involved
	1		Aluminum			
	2		Alumina			
3		Tungsten				
3	Discuss the reasoning for not selecting diamond cutting tool in steel machining and state the remedies.				3+3	
4	Suggest 3 materials for a machine tool bed with reasoning				4	
5	Discuss the possibilities of photocatalytic cancer therapy				4	
6	20-30wt% abrasive concentration is preferred in ultrasonic machining. State the reasons for the same.				4	
7	List the principles of ultrasonic generation, which one is preferred in micro ultrasonic machining of silicon substrate, why?				4	
8	Suggest the die material for micro extrusion and state the reason for the same.				4	