A th Semester Regular / Back Examination 2017-18 RAPID MANUFACTURING PROCESS BRANCH: MECH Time: 3 Hours Max Marks: 100 Q,CODE: C1163 Answer Part-A which is compulsory and any four from Part-B.210 The figures in the right hand margin indicate marks. Answer all parts of a question at a place. Part – A (Answer all the questions) Q1 Answer the following questions:multiple type or dash fill up type: (2 x 10) Which one of the following is not related to rapid prototyping definition? (a) Layer by layer (b) physical model (c) from 3D CAD data (d) production line 210 210 (b) Which one of the process does not use a LASER? (a) LOM (b) SLA (c) SLS (d) FDM C) Which one of the process is available in colors? (a) SLA (b) FDM (c) MJM (d) 3D printer (d) What is the format for prototyping machine file? (a) .p.rt (b) .slt (c) .slt (d) .jegs (c) Multi Jet Modeling (d) Stereolithography Apparatus (a) FDM (b) SLS (c) FDM (d) LOM (b) Which one of the process is subtractive prototyping? (a) 5 axis CNC milling (d) Stereolithography Apparatus (a) MJM (b) SLS (c) FDM (d) LOM (d) FDM (e) Which of the process uses extrusion concept? (a) SLA (b) SLS (c) LOM (d) FDM (d) FDM (e) SLI (c) SLI (d) FDM (d) FDM (e) MJM (d) SLS (c) FDM (d) LOM (e) SLI (d) FDM (f) FDM	Total N	umber of Pages : 02 210 210 B.Tech.
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210 210 210 210 210 210 210 210	j)	Why powder based RP systems do not require support structures?

210	210	210	210	210	210	210		210
	Q3 a	Explain in details the r	ole of RP in ba		<u></u>		(10) (5)	
210	Q4 a	Describe in details t finishing errors in RP.	he data prepa	aration errors, p	art building en	rors and	(10)	210
	b		rs affecting acc	curacy in RP syste	em.		(5)	
	Q5 a	•			d layering techn	iques.	(10) (5)	
210	Q6 a	its advantages, limitati	(10)	210				
210	²¹⁰ b	What are the process parameters and materials used for SLS?					(5) (10)	210
	Q7 a	Also write its advantag	Explain Laminated Object Manufacturing (LOM) process with a neat sketch. Also write its advantages, limitations and applications. What is Solid Ground Curing? What is a mask in SGC and how it is used?					
	Q8 a		J		ocess parame		(5) (10)	
210	210 b	Stereolithography pro limitations and applica	cess with a r tions:10	neat sketch. Also	o write its adv		(5)	210
	Q9 a	•		•		RP usina	(10)	
	b	metallic alloy.					(5)	
210	210	210	210	210	210	210		210
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