The state of the s	31	De
	iagonal cross lines on the remaining blank pages.	and /or equations written eg, $42+8=50$, will be treated as malpractice.



CBCS SCHEME

18MT642

(10 Marks)

Sixth Semester B.E. Degree Examination, Jan./Feb. 2023 **Rapid Prototyping**

Time: 3 hrs. Max. Marks: 100

		N	lote: Answer any FIVE full questions, choosing ONE full question from each mo	odule.
ice.			Module-1	
on completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. In revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.	1	a.	Briefly explain the growth of Rapid Prototyping in the industry.	(10 Marks)
malı		b.	List the advantages and applications of Rapid Prototyping.	(10 Marks)
as				
atec			OR	
s. e tre	2	a.	Classify Rapid Prototyping System and explain any one class.	(10 Marks)
oage ill b		b.	Explain with a neat sketch, Stereo Lithography System.	(10 Marks)
mk I), w			Maddle 2	
On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Any revealing of identification, appeal to evaluator and /or equations written eg, $42+8=50$, will be	3	0	Module-2 Illustrate with a neat sketch, Fusion Deposition Modelling.	(10 Marks)
ning 2+8	3	a. b.	Briefly explain solid ground cutting and process parameter of FDM.	(10 Marks) (10 Marks)
mai 3, 42		υ.	Briefly explain solid ground eatting and process parameter of 1 DW.	(10 Marks)
ie re			OR	
on th	4	a.	With a neat block diagram, explain Laminated Object Manufacturing.	(10 Marks)
nes c		b.	Explain the applications of FDM and LOM.	(10 Marks)
s lir ation				
cros			Module-3	
nal /or	5	a.	With a neat sketch, explain Selective Laser Sintering Technology.	(12 Marks)
iago and		b.	Explain the raw material used for selective laser sintering technology.	(08 Marks)
w d			OR	
' dra valu	6	a.	State the advantages and disadvantages of the SLS process.	(10 Marks)
orily to e	U	b.	Explain the process of SLS.	(10 Marks)
oulse		٥.	Emplain and process of SES.	()
omp			Module-4	
rs, c ion,	7	a.	Explain the classification of Rapid Tooling.	(10 Marks)
swe		b.	With a neat sketch, explain the direct ACES injection molding setup.	(10 Marks)
r an entil			OD	
you fid	8	0	With a neat sketch, explain layout of laminated tooling.	(10 Marks)
ing ng c	o	a. b.	Compare the rapid tooling with conventional tooling and also explain the use o	
ıplet eali		υ.	in investment costing.	(10 Marks)
con			m m vestilen.	(
On Any			Module-5	
	9	a.	Explain Magic's and Mimic's software which are used for 3D printouts of RP m	
b. List the internet based software for RP and explain how the solid vie of 3D model. OR				(10 Marks)
nt N		b.		(10 Marks)
orta			of 3D model.	(10 Marks)
duıJ			OR	
	4.0		D: G I D D D	(10 1/1 - 1 -)

OR

- 10 a. Briefly explain Data Preparation Errors.
 - b. Briefly explain the factors influencing on the accuracy. (10 Marks)