CBCS SCHEME

USN | | | | | | | | | |

18MT642

Sixth Semester B.E. Degree Examination, June/July 2023
Rapid Prototyping

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

1	a.	Classify Rapid Prototyping System and explain any one class.	(10 Marks)
	b.	Explain the growth of Rapid Prototyping in the Industry.	(10 Marks)

OR

2	a.	With a neat sketch, explain stereolithography process.	(10 Marks)
	b.	Explain the advantages and applications of Rapid Prototyping.	(10 Marks)

Module-2

3	a.	With a neat sketch explain the working of fusion deposition modeling.	(10 Marks)
	b.	Explain solid ground curing with neat diagram.	(10 Marks)

OR

4	a.	Describe laminated object manufacturing process involving solid sheets.	(10 Marks)
	b.	List LOM materials and explain the applications of LOM.	(10 Marks)

Module-3

5	a.	With a neat sketch, explain selective Laser Sintering Technology.	(10 Marks)
	b.	Briefly explain the Data Preparation for Selective Laser sintering Process.	(10 Marks)

OR

6	a.	Explain the raw materials used for SLS technology.	(10 Marks)
	b.	Explain the applications SLS process.	(10 Marks)

Module-4

7	a.	Compare rapid tooling with convectional tooling.	(10 Marks)
	b.	With a neat sketch, explain the direct ACES injection molding setup.	(10 Marks)

OR

8	a.	Explain Spray Metal Tooling.	(10 Marks)
	b.	Briefly explain quick cost process.	(10 Marks)

Module-5

9	a.	List the internet based software for Rapid Prototyping.	(10 Marks)
	b.	Write a short note on Magic's and Mimics.	(10 Marks)

OR

10	a.	Explain the requirements that must be followed during STL file generation.	(10 Marks)
	b.	Briefly explain data preparation error.	(10 Marks)

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