

GUJARAT TECHNOLOGICAL UNIVERSITY**BVOC - SEMESTER-VI EXAMINATION – WINTER 2022****Subject Code:1160301****Date:13-12-2022****Subject Name:Rapid Prototyping and Reverse Engineering****Time:02:30 PM TO 04:30 PM****Total Marks:50****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

	Marks
Q.1 (a) Write a short note on the medical application of Rapid Prototyping.	05
(b) Explain Fused Deposition Modeling (FDM) method with neat sketch.	05
Q.2 (a) Explain different types of data formats used for rapid prototyping.	05
(b) Explain Tool path generation in Rapid Prototyping	05
OR	
(b) Compare STL and SLC file format.	05
Q.3 (a) With a neat sketch explain Selective Laser Sintering.	05
(b) Explain Laminated Object Manufacturing with neat sketch.	05
OR	
Q.3 (a) Differentiate between SLS and DMD.	05
(b) With a neat sketch explain Laser Engineered Net Shaping (LENS)	05
Q.4 (a) Differentiate between traditional prototyping and rapid prototyping.	05
(b) What are the different Rapid Tooling techniques?	05
OR	
Q.4 (a) Explain the generic RP process with neat sketch.	05
(b) Differentiate between Conventional Tooling and Rapid Tooling.	05
Q.5 (a) Comparison between Selective laser Sintering (SLS) and 3D Printer	05
(b) What is Reverse Engineering? Write advantages of RE.	05
OR	
Q.5 (a) Explain a Direct Metal Deposition (DMD) in RP Processes.	05
(b) Describe applications of RP.	05
