

Reg. No.

--	--	--	--	--	--	--	--	--	--

**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY::PUTTUR
(AUTONOMOUS)****M.Tech I year II Semester Regular Examinations June 2019****RAPID PROTOTYPING****(CAD/CAM)****Time: 3 hours****Max. Marks: 60**

(Answer all Five Units 5×12=60 Marks)

UNIT I

- 1 a What is rapid prototyping? Give its advantages and limitations? 6M
b What are the materials used in rapid prototyping? 6M

OR

- 2 a Describe the principle of working of Stereo lithography system. 6M
b What are the advantages and disadvantages of SLA? 6M

UNIT II

- 3 a With an example explain path generation in FDM process. 6M
b What are the applications of FDM models? Give an example? 6M

OR

- 4 a What are the materials used in SLS system? 6M
b Differentiate SLA and SLS in rapid prototyping. 6M

UNIT III

- 5 a List the various rapid prototype concept modelers. 6M
b Explain how SLS process can be used to produce direct and in-direct prototypes. 6M

OR

- 6 a Explain the working principle of three dimensional printing along with its advantages. 6M
b Explain in detail about process details and machine details of 3-D printing. 6M

UNIT IV

- 7 a List out the various indirect rapid tooling methods and explain about the silicon rubber tooling. 6M
b Explain rapid tooling. 6M

OR

- 8 a Discuss about Cast kriksite and 3Q Keltool. 6M
b What is the collaboration tools used in RP software? 6M

UNIT V

- 9 a Explain briefly vacuum casting and epoxy tooling. 6M
b Write the applications of vacuum casting and epoxy tooling. 6M

OR

- 10 a What are the factors which influences accuracy of RP model? 6M
b What is meant by data preparation error? 6M

*****END*****