

Register Number:

M.E DEGREE EXAMINATIONS: APRIL/MAY 2010

Second Semester

CAD/CAM

CCM563: Rapid Prototyping Tooling and Manufacture

Time: Three hours

Maximum Marks: 100

Answer ALL Questions:-

PART A (10 x 2 = 20 Marks)

1. What is meant by RPT?
2. What is conceptual design?
3. Name any two RP processes involving liquid polymer.
4. Give any two merits and demerits of SLA Process.
5. List the important process parameters of FDM.
6. Give any two disadvantages of SGC.
7. What is Z-wait?
8. State the material used in 3D printer.
9. What is slicing?
10. What are mimics in RPT?

PART B (5 x 16 = 80 Marks)

11. (a) Explain the importance and need for time compression in product development. .

(OR)

- (b) Explain stereo lithography process in detail and also give its applications.

12. (a) Describe the SLS process with merits and demerits.

(OR)

- (b) Explain the working principle of FDM process with neat sketch.

13. (a) Discuss the SGC process with neat sketch also give merits of SGC.

(OR)

(b) Explain the working principle of LOM process with neat sketch.

14. (a) Explain the working principle JP System 5 with sketch.

(OR)

(b) Discuss the 3D Printer with applications.

15. (a) (i) Discuss the RP tooling in detail. (10)

(ii) Write about STL file format. (6)

(OR)

(b) How RP technology is involved in medical field. Explain any two examples.
