



Eighth Semester B.E. Degree Examination, Aug./Sept. 2020
Rapid Prototyping

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions, selecting at least TWO questions from each part.

PART – A

- 1 a. With a schematic diagram, explain Stereo Lithography process. (08 Marks)
- b. Explain with examples, application of RP in three different fields. (06 Marks)
- c. Explain the process parameters in Stereolithography. (06 Marks)

- 2 a. Explain Data Preparation method in SLS. (06 Marks)
- b. Explain any 4 applications of Selective Laser Sintering. (04 Marks)
- c. With a neat sketch, explain Fused Deposition Modelling. (10 Marks)

- 3 a. With a schematic diagram, explain solid Ground curing. (10 Marks)
- b. Explain the two techniques used in LOM. (10 Marks)

- 4 a. With a schematic diagram, explain working of 3D printing machine. (08 Marks)
- b. Explain with a diagram, Thermal Ink Jet Printing. (08 Marks)
- c. Write a note on Genisys Xs printer HP system. (04 Marks)

PART – B

- 5 a. With neat sketch, explain Silicone Rubber Tooling. (10 Marks)
- b. Explain 'Spray Metal Tooling'. (10 Marks)

- 6 a. Explain the 'Quick Cast Process'. (07 Marks)
- b. Explain with a line diagram 'Direct Metal Laser Sintering'. (08 Marks)
- c. Compare Hard Tooling with Soft Tooling. (05 Marks)

- 7 a. Explain any four common errors in CAD to STL conversion. (08 Marks)
- b. Explain briefly
 - i) Imics
 - ii) Magics
 - iii) Magic communicator.
 (12 Marks)

- 8 a. Explain with sketch, Error due to slicing. (08 Marks)
- b. Write note on :
 - i) Part Finishing Error
 - ii) Part Building Error.
 (12 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

