

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech. Summer 2018 - 19 Examination

Semester: 2
Subject Code: 203219153
Subject Name: Rapid Prototyping and Tooling

Date: 08/05/2019
Time: 10:30AM to 1:00PM
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1** A) Classify various rapid prototyping technologies. (05)
B) Discuss various applications of rapid prototyping and tooling in detail. (05)
C) Differentiate forward and reverse engineering. (05)
- Q.2 Answer the following questions.** (Attempt any three) (Each five mark) (15)
A) List various file formats used in design and rapid prototyping machines. Explain the process of importing CAD file to any RP machine.
B) Discuss role of reverse engineering in product development.
C) Differentiate between additive manufacturing and subtractive manufacturing.
D) Describe various errors in rapid prototyping processes.
- Q.3** A) Classify solid based RP techniques and explain Fused Deposition Modeling with neat sketch. (07)
B) Classify liquid based RP techniques and explain any one with neat sketch. (08)
- OR**
- B) Classify powder based RP techniques and explain any one with neat sketch. (08)
- Q.4** A) Justify reverse engineering as a generic concept with its appropriate applications. (07)
- OR**
- A) Discuss various phases of reverse engineering in detail. (07)
B) Classify point data acquisition techniques and discuss related issues. (08)