Roll No											

PRESIDENCY UNIVERSITY
BENGALURU

SCHOOL OF ENGINEERING
END TERM EXAMINATION - JUN 2023

Semester : Semester IV - 2021
Course Code : MEC3023
Course Name : Sem IV - MEC3023 - Rapid Tooling and Industrial Applications
Program : MEC

Date : 14-JUN-2023
Time : 9.30AM - 12.30PM
Max Marks : 100
Weightage : 50%

Instructions:
(i) Read all questions carefully and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and non-programmable calculator are permitted.
(iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS **(5 X 2 = 10M)**

1. Define Automation

(CO2) [Knowledge]

2. List the Solid based Additive manufacturing Materials

(CO3) [Knowledge]

3. List any four applications of rapid prototyping.

(CO3) [Knowledge]

4. Explain the key aspects of rapid prototype technologies

(CO4) [Knowledge]

5. What is Rapid Prototyping.

(CO1) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS **(6 X 10 = 60M)**

6. With a neat sketch explain the working principle of FDM Processs.

(CO4) [Comprehension]

7. Discuss about Cast kriksite and 3Q Keltool.

(CO3) [Comprehension]

8. Explain Quickcast Process.

(CO4) [Comprehension]

9. Explain RSP working principle.

(CO4) [Comprehension]

10. Explain Solid Ground Curing (SGC).

(CO5) [Comprehension]

11. With a neat sketch explain Silicon Rubber Tooling.

(CO2) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS **(2 X 15 = 30M)**

12. With neat sketch explain the process of selective laser sintering process and its advantages, disadvantages and applications.

(CO4) [Application]

13. Discuss about the influence of various factors in determining the part building error and data preparation error.

(CO5) [Application]