Roll No											

PRESIDENCY UNIVERSITY
BENGALURU

SCHOOL OF ENGINEERING
END TERM EXAMINATION - JUN 2023

Semester : Semester VI - 2020
Course Code : MEC3040
Course Name : Sem VI - MEC3040 - Modern Manufacturing Processes
Program : MEC

Date : 19-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. What are the 5 M's required to perform manufacturing activity? (CO1) [Knowledge]
2. List the Basic Steps in the Powder Metallurgy Process. (CO1) [Knowledge]
3. List the various High Energy Rate Forming Techniques. (CO3) [Knowledge]
4. What are The Five Lean Principles? (CO4) [Knowledge]
5. What are the Components Produced by Casting Process. (CO2) [Knowledge]

PART B

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

6. With the help of a sketch discuss the Information-processing cycle in a typical manufacturing firm. (CO1) [Comprehension]

7. How the two metal pieces are joined by Laser Beam Welding Process? Explain with the help of a sketch?

(CO3) [Comprehension]

8. How do you categorize the 7 forms of waste in Lean Manufacturing?

(CO4) [Comprehension]

9. With the help of a sketch explain the basic elements in a Gating System.

(CO2) [Comprehension]

10. How the two metal pieces are joined by Friction Welding Process? Explain with the help of a sketch.

(CO3) [Comprehension]

11. How the Just In Time Lean tool will help the Industry to improve overall performance?

(CO4) [Comprehension]

PART C

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

12. Implementation of Overall Equipment Effectiveness (OEE) enhances the productivity of the plant, justify with example.

(CO4) [Application]

13. With the help of a sketch explain the Explosive Forming operation.

a) Stand-off operation.

b) Contact operation.

(CO3) [Application]