Roll No.												

PRESIDENCY UNIVERSITY
BENGALURU

School of Engineering

Mid - Term Examinations - November 2024

Semester: VII
Date: 05-11-2024
Course Code: MEC3002
Time: 2:00pm – 3:30pm
Course Name: Introduction to Additive Manufacturing & Its Application
Max Marks: 50
Program:B.Tech
Weightage: 25%

Instructions:

(i) Read all questions carefully and answer accordingly.
(ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2 marks. 5QX2M=10M

1	What is additive Manufacturing?	2 Marks	R	CO1
2	What are the limitation of Additive manufacturing (AM)?	2 Marks	R	CO1
3	List out the application of stereolithography Apparatus (SLA) process	2 Marks	R	CO1
4	What are the uses of post processing of AM Parts?	2 Marks	R	CO2
5	What are the unique capabilities of AM?	2 Marks	R	CO2

Part B

Answer ALL Questions. Each question carries 10 marks. 4QX10M=40M

6	With simple sketch Explain the working principle of Cubital Solid Ground Curing (SGC) process of Additive manufacturing with its applications	10 Marks	U	CO1
	Or			
7	Explain the Cubic technologies 'Laminated Object manufacturing' (LOM) process of additive manufacturing with its application	10 Marks	U	CO1

8	Explain the Eight step process of Generic Additive Manufacturing Process that are followed to produce the model	10 Marks	U	CO1
	Or			
9	With simple diagram explain the 3D systems' Selective laser Sintering process with its applications	10 Marks	U	CO1
10	Explain the classification of Design for manufacturing (DFM)used in AM.	10 Marks	U	CO2
	Or			
11	Write a short note on design for AM (a) Part orientation (b) Reduction of part count in an assembly	10 Marks	U	CO2
12	Explain the any 4 post processing techniques to enhance the properties of AM products	10 Marks	U	CO2
	Or			
13	13a. Explain the unique capabilities of AM techniques	5 Marks	U	CO2
	13b. List out the objectives of DFMA in AM process.	5 Marks	U	CO2