Department of Mechanical Engineering, NIT Srinagar
M.Tech. (2nd Semester)/ Ph.D., Spring -2020

Subject: Advanced Manufacturing Systems (TMM204 / MSD205)

<u>Assignment-I</u>

Last Date for submission: 02nd May, 2020

1   Why should Automation be implemented in manufacturing industries? Discuss some points against the use of Automation in manufacturing industries. Explain the types of Automation.

2   Why are Design for Manufacture and Assembly (DFMA) guidelines developed? What are the benefits of DFMA? Describe the guidelines of DFMA.

3   Describe the RP technology called Fused deposition modelling and Selective laser sintering with a neat sketch.

4   What do you understand by Additive manufacturing? How does it differ from conventional manufacturing?

5   Justify the use of Robots in manufacturing industries and draw a neat diagram to show different motions of robotic end effector.

6   Apply the knowledge of CNC programming to write a part program for producing Initial Alphabet of your name on a block (100mm x 100mm x 10mm). Feed rate = 25 mm/min and tool diameter is 4 mm. Use incremental coordinate system.

****

- **Submit the scan copy of your assignment via mail to <u>noorzaman@nitsri.ac.in</u> on or before the date of submission and retain the hard copy with you.**