

Th-4 Advance Manufacturing Processes

Time- 3 Hrs

Full Marks: 80

Answer Any Five Questions including Q No.1& 2
Figures in the right-hand margin indicates marks

2 x 10

1. Answer All questions
- What is the need of studying Advance Manufacturing Processes?
 - Name the equipments used in ultrasonic machining process.
 - What is thermoforming process in plastics? Name the different thermoforming processes.
 - State four process parameters of Wire Cut-EDM process.
 - Write down any four important applications of plastics.
 - ✓ State the principles of SPM design.
 - g. State the needs of Additive Manufacturing.
 - h. ✓ What is Manufacturing Automation?
 - i. Name at least four machine parts which need to be lubricated.
 - ✓ What is the importance of maintenance manual?

6 x 5

2. Answer Any Six Questions
- ✓ Discuss about different layouts of Special Purpose Machine design.
 - b. Discuss briefly about web based Rapid Prototyping.
 - c. Differentiate between Capstan Lathe with Turret Lathe.
 - ✓ Discuss about Repair Cycle and Repair Complexity.
 - ✓ What is machine tool maintenance? Why it is needed?
 - ✓ Explain Blow Moulding process in Plastics with sketch.
 - ✓ Describe ECM Process with appropriate diagram.

- ✓ Describe the material removal in LBM Process. Draw the diagram of the process. 10
- ✓ Explain Plastic Extrusion Process with neat sketch. 10
- 5 Discuss about different types of Maintenance with necessary examples. 10
- 6 Explain Stereolithography Process with its Advantages, Limitations & Applications. 10
- 7 Write short notes on any TWO 10
- a) Abrasive Jet Machining
- b) Transfer Moulding
- c) Ring Lubrication
- d) Total Productive Maintenance