

**Th4 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

1. Answer All questions

2 x 10

- a. How an Ultrasonic Machining tool removes the material?
- b. Explain Encapsulation process.
- c. What is meant by Manufacturing?
- d. Define Additive Manufacturing process.
- e. Name two process parameters that affect extrusion of plastics.
- f. What is Concurrent Engineering?
- g. What is meant by processability of plastics?
- h. State the purpose of Maintenance.
- i. State the layouts of Special Purpose Machining.
- j. State the full form of LASER.

2. Answer Any Six Questions

6 x 5

- a. Discuss about Calendering process with sketch.
- b. Compare Additive Manufacturing with CNC.
- c. Discuss about Abrasive Jet Machining Process with diagram.
- d. Explain Repair cycle.
- e. What is Total Productive Maintenance?
- f. Explain Injection Moulding process with diagram.
- g. Discuss about Special Purpose Machining.

3. Discuss about any two types of Thermoforming process with sketch.

10

4. Discuss about different types of Machine Tool maintenance.

10

5. Describe briefly about Blow Moulding Process with neat sketch.

10

6. Explain Electric Discharge Machining Process with neat sketch.

10

7. Discuss about the 3-D Printing process principle, materials, advantages and limitations with necessary diagram.

10