

Q.P. Code :11084

[Time: 3 Hours]

[Marks:80]

- N.B:**
1. Question No. 1 is compulsory.
 2. Attempt **any three** questions from remaining **five** questions.
 3. Illustrate your answers with **neat sketches**.
 4. **Figures** to the right indicate full marks.

- Q.1 Write short notes on any four- 20
- a) Pattern Allowances.
 - b) Silicon Integrated Circuits processing.
 - c) Plasma arc machining.
 - d) Extrusion in plastic.
 - e) Types of chip.
- Q.2 a. Explain investment casting and give its relative merit and demerits. 10
- b. Describe the difference between compound, progressive and Transfer Dies. 10
- Q.3 a. Explain the following term: 10
- i) Bending ii) Piercing iii) Coining iv) Trimming
- b. Explain the significance of F.W Taylor Tool life Equation. 05
- c. Distinguish between Orthogonal cutting and Oblique cutting. 05
- Q.4 a. What are the basic elements of lathe machine? Explain the function of each. 10
- b. Explain shaping machine with neat diagram. 05
- c. What are the advantages and disadvantages of adhesive bonding technology? 05
- Q.5 a. Distinguish between Brazing and Soldering. 06
- b. Explain the basic principle of forge welding with neat sketch. 06
- c. Explain the construction, working, application of ultrasonic machining process. 08
- Q.6 a. Write short note on (i) Selective laser sintering (ii) Laminated object manufacturing. 10
- b. Name the three exposure technique in photolithography and explain in brief. 10