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**Question Paper Code : 80225**

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2019.

Third Semester

Mechanical Engineering

ME 8351 — MANUFACTURING TECHNOLOGY — I

(Common to Industrial Engineering/Industrial Engineering and Management/  
Mechanical Engineering (Sandwich)/Mechanical and Automation Engineering)

(Regulation 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Write about any two advantages of sand casting.
2. Make a note on shrinkage allowance.
3. Define Welding.
4. Make a note on soldering.
5. What is meant Flat rolling?
6. What is Recrystallization temperature?
7. What is the effect of clearance in the punch and die for shearing sheet metal?
8. Define Spring Back in bending operation.
9. Make a short note on film blowing.
10. How is homopolymer different from co-polymer?

PART B — (5 × 13 = 65 marks)

11. (a) Explain hot chamber die casting process with a neat sketch.

Or

- (b) Elucidate with neat sketch Stir Casting with process parameters.

12. (a) Explain with neat sketch Plasma Arc Welding Process.

Or

(b) Sketch and explain Fusion Welding Processes.

13. (a) Explain the advantages and limitations of hot working and cold working.

Or

(b) Discuss blanking and punching with three processing phases.

14. (a) Enumerate about standoff method of Explosive forming.

Or

(b) Explain about types of Tube bending.

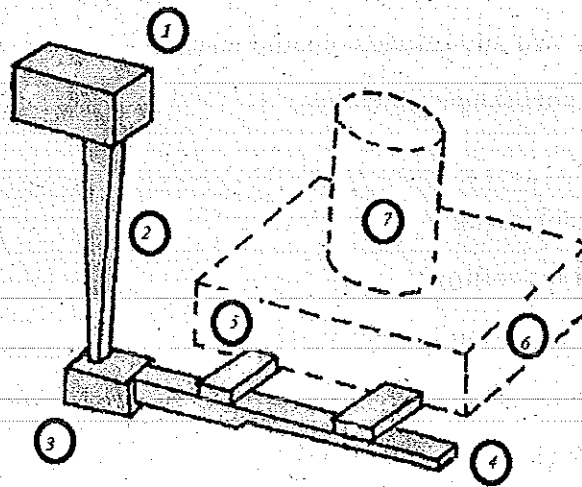
15. (a) Explain about transfer moulding with its advantages and limitations.

Or

(b) Enumerate with neat sketch about Solvent Bonding.

PART C — (1 × 15 = 15 marks)

16. (a) Identify the elements of gating system and explain their role in the casting output.



Or

(b) Discuss various types of welding defects, their causes and the ways of eliminating them.