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Question Paper Code : 25145

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2018.

Third Semester

Mechanical Engineering

ME 8351 — MANUFACTURING TECHNOLOGY — I

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

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What do you mean by core print?
2. Make a note on Loam mould.
3. What is the difference between Brazing and Braze Welding?
4. Why shielding of weld area during welding is required?
5. What do you mean by angle of bite?
6. What do you mean by Recrystallisation temperature?
7. Make a short note on hydro forming of sheet metal.
8. What is meant by standoff distance in Explosive forming process?
9. Write short note on Thermoset plastics.
10. Make a note on film blowing.

PART B — (5 × 13 = 65 marks)

11. (a) Enumerate about carbon-di-oxide (CO₂) moulding. (13)

Or

- (b) Sketch a common Hot chamber die casting machine. Explain with its applications. (13)

12. (a) Explain the neat sketch the working principles of Gas Metal Arc Welding. (13)

Or

- (b) Explain principle and two types of friction welding process. (13)

13. (a) Elucidate about the types of rolling stand arrangement. (13)

Or

- (b) Explain about the preparation requirement before wire drawing process. (13)

14. (a) Explain the principle of magnetic pulse forming with its advantages and limitations. (13)

Or

- (b) Explain with neat sketch hydro forming. Mention its advantages and Limitations. (13)

15. (a) How is a plastic component manufactured in compression moulding. (13)

Or

- (b) Explain procedure and guidelines for making a solvent bonding of plastics. (13)

PART C — (1 × 15 = 15 marks)

16. (a) Explain with necessary sketches applications of following sheet metal forming operations: Shaving, Slitting, Notching.

Or

- (b) Explain the requirements for the Pattern Material. Discuss the suitability of following materials: Wood, Aluminium, Rubber, brass and White metal.