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Question Paper Code : X10693

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020

Third Semester

Mechanical Engineering

ME 8351 – MANUFACTURING TECHNOLOGY – I

(Common to Industrial Engineering/Industrial Engineering and Management/
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 is cohesiveness and explain briefly ?
2. Make a note on CO₂ moulding.
3. What is the minimum distance should be maintained between two successive resistance spot welds ? Why ?
4. What are causes and remedy for weld porosity ?
5. What are the factors, which influences the working temperature of hot working ?
6. What is meant by tandem drawing ?
7. What is meant by formability of sheet metal ?
8. What is meant by spring back in sheet metal forming ?
9. What is meant by Poly addition ?
10. What is the difference between Rota moulding and other Plastic moulding processes ?

PART – B

(5×13=65 Marks)

11. a) Discuss on different types of pattern used in mould making for sand casting process.

(OR)

- b) Explain with neat sketches steps involved in Last wax casting process.

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12. a) Explain about three types of flames used in gas welding and their applications.

(OR)

b) Elucidate process parameters of friction stir welding and their control.

13. a) Classify rolling mills. Sketch and explain the principle involving in each rolling mill with their application examples.

(OR)

b) Explain various forging defects, their causes and remedial actions.

14. a) List out various stretch forming methods. Explain any one.

(OR)

b) Elucidate with a neat sketch rubber pad forming.

15. a) Explain about the extrusion process of plastics.

(OR)

b) Explain the Reciprocating Screw Injection Moulding of plastics with advantages and limitations.

PART – C

(1×15=15 Marks)

16. a) Discuss about suitable casting techniques used for Aluminum alloy parts.

(OR)

b) Discuss different test requirements of formability of sheet metal.
