Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 72139

B.E./B.Tech DEGREE EXAMINATION, APRIL/MAY 2017

Third/Fourth Semester

Mechatronics Engineering

ME 6352 — MANUFACTURING TECHNOLOGY

(Common to Aeronautical Engineering Automobile Engineering)

(Regulations 2013)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the different casting defects?
2. List any two cast products of shell mould.
3. Distinguish A.C and D.C metal are welding.
4. How brazing differs from soldering?
5. State any four shaper specifications.
6. Differentiate a Capstan and Turret lathes.
7. State some examples for thermoplastics.
8. Name any two method of bonding thermoplastics.
9. Name the types of rolling operations.
10. What are the applications of powder metallurgy?

PART B — (5 × 13 = 65 marks)

11. (a) What are the different types of mould? Explain "green sand mould" and "shell moulding"?

Or

(b) Explain CO_2 process of core making. State its advantages and disadvantages.

12. (a) Explain the method of laser beam welding and give their application.

Or

(b) Describe submerged arc welding process with its application and advantages.

13. (a) Describe the horizontal knee by milling machine, with suitable sketch.

Or

(b) Explain electron beam machining (EBM) and ultrasonic machining (UM).

14. (a) Explain the working principle and application of

(i) Injection moulding

(ii) Film moulding.

Or

(b) Describe thermoforming and transfer moulding process.

15. (a) Explain the step involved in powder metallurgy process.

Or

(b) Explain the types of Extrusion process.

PART C — (1 × 15 = 15 marks)

16. (a) Discuss the various factors to be considered in selection of appropriately process for any automobile component of your choice. Also explain the manufacturing of the same.

Or

(b) Name any one component produced by flow moudly and explain the steps in producing the same.

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