

13/05/2019

Roll No.
Printed Pages : 2

37058

BT-7 / M-19
ADVANCED MANUFACTURING
TECHNOLOGY
Paper-ME-419-E

Time allowed : 3 hours]

[Maximum marks : 100

Note : Attempt five questions in all, selecting at least one question from each unit.

Unit-I

1. (a) What is Hot Machining? Elaborate the process of machining of plastics. 10
- (b) Write a detailed note on surface coatings. 10
2. (a) What are Composites and Agglomerated Materials? 8
- (b) Describe the process of fabrication of particulate composite structures. 12

Unit-II

3. Write notes on the following : 20
- (a) Injection Moulding
- (b) Compression Moulding
4. (a) Why thread Rolling has become the most commonly used method for thread manufacture? 12
- (b) Under what conditions thread milling is used to produce the threads. 8

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[Turn over

(2)

Unit-III

5. (a) Briefly explain cold forming, hot forming and warm forming processes. 6
- (b) Derive a suitable expression for forging pressure distribution in an open die forging process considering sticking friction condition. 14
6. Derive a suitable expression for draw stress in a wire drawing process considering friction and backpull. State clearly the underlying assumptions. 20

Unit-IV

7. Write notes on the following :
- (a) Limitation of Die Casting 5
- (b) Cold chamber Diecasting Machine 8
- (c) Vacuum die casting 7
8. (a) What are the various elements of cost? 10
- (b) List data required by the estimator to arrive at an estimate of a new product. 10

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