

Roll No.

Total Pages : 02

BT-7/D-1.9

37058

ADVANCED MANUFACTURING
TECHNOLOGY
ME-419E

Time : Three Hours]

[Maximum Marks : 100

Note : Attempt Five questions in all, selecting at least one question from each Unit.

Unit I

- 1. (a) What is Electroforming ? Explain its principle and give some applications. 12
- (b) Write a note on surface coating for tooling. 8
- 2. Write notes on the following :
 - (a) Fabrication of Reinforced Composite 8
 - (b) Machining and Joining of Composites. 12

Unit II

- 3. (a) What is a Polymer ? Explain polymerization and addition of Polymers with examples. 10
- (b) What is the principle of Transfer Moulding ? List some industrial uses. 10

(2-39/6) L-37058

P.T.O.

- 4. (a) Write a detailed note on Die Threading and Tapping. 12
- (b) Explain the "Three Wire Method" of checking the pitch diameter of a screw. 8

Unit III

- 5. (a) Differentiate between hot working and cold working in metal forming. Bring out the advantages and disadvantages of each of these techniques. 10
- (b) Discuss the effects of temperature, strain rate and friction on metal forming process. 10
- 6. (a) What is meant by conventional rolling and powder rolling ? Explain the terms no slip point, backward slip, forward slip and draft in relation to rolling. 12
- (b) Derive a suitable expression for draw stress in frictionless wire drawing process. 8

Unit IV

- 7. Write notes on the following :
 - (a) Hot chamber die casting machine 10
 - (b) Die lubrication and coating. 10
- 8. (a) Give general relationships for calculating machining times in Turning, Drilling, Facing and Shaping. 12
- (b) List the various steps of cost estimating. 8

L-37058

2

1,100

http://www.kuonline.in

http://www.kuonline.in

http://www.kuonline.in

http://www.kuonline.in