

NAME.....

ROLL NO.....

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY-2008

**III B.TECH SUPPLEMENTARY EXAMINATIONS
FOUNDRY AND WELDING
(PRODUCTION ENGINEERING)**

AUG/SEP -2008

TIME-3 HOUR
MARK-80

ANSWER ANY FIVE QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.

1. (a) Explain why ramming obtained in sand slingers are more uniform over the depth than that in sand squeezers or Jolting machine?
(b) Define the term pattern. Explain how patterns differ from the drawing of the castings.
2. (a) Sketch and explain the construction and operation of hot chamber die casting machine.
(b) Differentiate between hot chamber die casting machine and cold chamber die casting machine.
3. (a) Explain the reasons why the section of sprue reduces downwards.
(b) What is choke? Discuss the pressurized gating system and un-pressurized gating system.
4. (a) Explain the factors to be considered in selection of weld joint.
(b) Explain various welding positions.
(c) Explain various types of welds with neat sketches.
5. Explain the following in the braze welding procedure.
 - (a) Cleaning surfaces
 - (b) Joint preparation
 - (c) Preheating of the parts
 - (d) Flame adjustment
 - (e) Method of applying flux and filler rod.
6. (a) Explain the reasons for estimating welding costs.
(b) Discuss the factors involved in welding costs.
7. (a) Discuss briefly the various methods used for manufacture of thermo plastics.
(b) What is meant by degree of polymerization?
(c) What are important properties of polymers?
8. (a) Explain Atomization and Milling methods of producing of metal powders.
(b) Explain the characteristics of metal powders.