

Registration No.

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Total Number of Pages: 01

**M.Tech.  
PDPC102**

**1<sup>st</sup> Semester Back Examination 2017-18**

**PRODUCTION TECHNOLOGY**

**BRANCH : PRODUCTION ENGG**

**Time : 3 Hours**

**Max Marks : 70**

**Q.CODE : B766**

**Answer Question No.1 which is compulsory and any five from the rest.**

**The figures in the right hand margin indicate marks**

- Q1. Answer the following questions: (2 x 10)**
- a) Define different welding positions.
  - b) What is camber in rolling?
  - c) Show different flames in welding with sketches.
  - d) What is direction solidification in casting?
  - e) Write down the applications of micro-electro -mechanical system.
  - f) Explain different forging defects?
  - g) What are the need of riser and chills in casting?
  - h) Differentiate TIG and MIG welding.
  - i) What is Nano-technology ?
  - j) How formability test is done in sheet metals ?
- Q2. Explain the parameters affecting rolling process. Write down the differences between hot and cold rolling. (10)**
- Q3. a) What is extrusion? Explain hydrostatic extrusion process. (5)**  
**b) Explain IC fabrication processes used for MEMS. (5)**
- Q4. What is impression die forging? Explain the differences between different forging processes with neat sketches. (10)**
- Q5. a) What are the applications of different forming operations. (5)**  
**b) Explain different casting defects with their remedies. (5)**
- Q6. Explain the design of gating system and what are the factors effecting fluidity? (10)**
- Q7. What HAZ in Welding? Explain ultrasonic welding. (10)**
- Q8. Write short notes on any Two (5X2)**
- a) Pattern allowances
  - b) underwater welding
  - c) Open die forging
  - d) Explosive welding