

**B.Tech. – VIEP – MECHANICAL ENGINEERING  
(BTMEVI)**

00651

**Term-End Examination**

**June, 2019**

**BIME-009 : PRODUCTION TECHNOLOGY – I**

*Time : 3 hours*

*Maximum Marks : 70*

*Note : Answer any **five** questions. All questions carry equal marks.*

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1. (a) What are the types of moulding sands ?  
Briefly explain the properties of moulding sand. 7
  - (b) Which metals are generally used for making patterns ? Explain the reasons for their selection. 7
  2. (a) Discuss the investment casting process with neat sketch. 7
  - (b) Explain oxy-acetylene welding process with neat sketch. Write their advantages and applications. 7

3. (a) Explain the various cleaning and finishing processes used for castings. 7
- (b) What is recrystallization temperature ? Distinguish between hot working and cold working with respect to temperature. 7
4. (a) What are forging defects ? How can they be detected and rectified ? 7
- (b) Explain the difference between direct and indirect extrusion with suitable examples. 7
5. (a) Explain the working of electro hydraulic forming with neat sketch. 7
- (b) Explain any seven types of shearing operations. 7
6. (a) Briefly explain the process of wire drawing. Also state its advantages. 7
- (b) What are the various types of spinning processes ? Explain any one method with a neat sketch. 7

7. Write short notes on any **four** of the following :  $4 \times 3 \frac{1}{2} = 14$

- (a) Explosive Forming
  - (b) Blanking
  - (c) Brazing
  - (d) Bending
  - (e) Pattern Allowance
  - (f) Radiant Energy Welding
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