

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

Term-End Examination

June, 2016

00378

BIME-009 : PRODUCTION TECHNOLOGY - I

Time : 3 hours

Maximum Marks : 70

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

1. What are the special casting techniques ?
Explain the process of semi-centrifugal casting
and give its applications. 10

2. What is meant by grain fineness number ?
Explain the procedure for determining this
number for a moulding sand. 10

3. Explain the process of ultrasonic welding with a
neat sketch. Also give its advantages and
disadvantages. 10

4. What are the common defects of casting ? State
their causes and remedies. 10

5. Describe the process of hot spinning and cold spinning. Also give their advantages and specific uses. 10
6. Draw a neat sketch of die-punch assembly with accessories. Also, explain how cutting operations such as blanking or piercing differ from deep drawing. 10
7. What is recrystallisation temperature? Distinguish between hot working and cold working with respect to this temperature. 10
8. Explain with a neat sketch the electro-hydraulic forming process. Also give its applications and limitations. 10
9. Briefly explain any one plastic moulding process with a neat sketch. 10
10. Write short notes on any *four* of the following : $4 \times 2 \frac{1}{2} = 10$
- (a) Shell Moulding Process
 - (b) Spatter
 - (c) Brazing
 - (d) Blanking
 - (e) CO₂ Moulding
 - (f) Thermosetting Plastics
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