

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

Term-End Examination

June, 2014

00844

BIME-009 : PRODUCTION TECHNOLOGY-I

Time : 3 hours

Maximum Marks : 70

Note : Attempt any seven questions. All questions are to be answered in English only. All questions carry equal marks.

1. Enlist the various special casting techniques. 10
Explain semi centrifugal casting. What are the application of semi centrifugal casting ?
2. Define 'gating ratio'. With neat sketches explain 10
the different types of gating systems.
3. What are the principles of resistance welding ? 10
Describe spot and seam welding.
4. With the help of neat sketches, discuss the 10
equipment required for Oxy-Acetylene welding.
Explain the different types of flames in Oxy-Acetylene welding.
5. State the difference between 'Smithing' and 10
'Forging'. Explain with neat sketches the following forging operations.
(a) Upsetting (b) Bending
(c) Drawing down (d) Fullering

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. With neat sketches explain the different types of extrusion processes and their applications. 10
8. Explain wire drawing process in detail. 10
9. With neat sketches, explain injection moulding and extrusion moulding. 10
10. Write short notes on **any four** of the following : 2½x4=10
- (a) Directional solidification
 - (b) Spatter
 - (c) Blow moulding
 - (d) Cores
 - (e) High velocity forming
 - (f) Soldering
 - (g) Forging defects
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