

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

Term-End Examination

December, 2013

BIME-009 : PRODUCTION TECHNOLOGY-I

Time : 3 hours

Maximum Marks : 70

Note : Attempt any Seven questions. All the questions are to be answered in english only. All questions carry equal marks.

1. What do you mean by green sand ? Briefly explain the properties of green sand. Explain the functions of runner, sprue and gate with the help of a figure. 10
2. What is master pattern ? Briefly explain pattern allowances with neat sketches. Explain split pattern and gated pattern. 10
3. With a neat sketch, explain true centrifugal casting, its advantages and disadvantages and its uses. 10
4. Briefly explain with neat sketches of the following. 10
 - (a) Gas flames and their specific uses.
 - (b) Gas cutting

5. With a neat sketch, explain shielded metal arc welding. What are the common defects in welding ? Also, discuss the advantages of flux coating on electrodes. **10**
6. What do you mean by forgeability ? Briefly explain forging operations. With neat sketches explain upset forging. **10**
7. With a neat sketch, explain cold spinning and its applications. **10**
8. Describe the various rolls used in rolling process. Briefly explain hot rolling. **10**
9. What are the different plastic moulding processes ? With a neat sketch explain blow moulding. **10**
10. Write short notes on *any four* of the following : **2½x4 =10**
- (i) High velocity forming
 - (ii) Wire drawing
 - (iii) Casting defects
 - (iv) Thermo setting plastics
 - (v) Hydrostatic extrusion
 - (vi) Brazing
 - (vii) Blanking