

**B.Tech. – VIEP – MECHANICAL ENGINEERING
(BTMEVI)****Term-End Examination****December, 2015****BIME-009 : PRODUCTION TECHNOLOGY – I***Time : 3 hours**Maximum Marks : 70*

Note : Answer any seven questions. 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, riser and gate with the help of neat sketches. 10
2. Discuss with the help of neat sketches, the different allowances that are provided on pattern. Explain split pattern with a neat sketch. 10
3. Explain the principles of resistance welding. Describe spot and seam welding. 10
4. Describe the method of oxy-acetylene welding with a neat sketch. Also list out the different types of flames produced in oxy-acetylene welding. 10

5. Why is press forging always preferred over hammer forging process ? Explain. Also list out the advantages of forging metal. 10
6. Explain the working of impact extrusion process with a neat sketch and give its applications. 10
7. Explain the wire drawing operation with a neat sketch. Discuss its advantages and applications. 10
8. (a) Discuss the shear spinning process and give its applications. 5
- (b) Explain the stretch forming process in detail. 5
9. Explain the working of mechanical high velocity forming process with a neat sketch. 10
10. Write short notes on any *four* of the following :
- $4 \times 2 \frac{1}{2} = 10$
- (a) Bending
- (b) Soldering
- (c) Defects in castings
- (d) Cores
- (e) Forging defects
- (f) Thermosetting plastics