

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

Term-End Examination

December, 2017

00872

BIME-009 : PRODUCTION TECHNOLOGY – I

Time : 3 hours

Maximum Marks : 70

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

1. (a) What do you mean by Green Sand ? Briefly explain the properties of green sand. 7
- (b) What is meant by Grain Fineness number ? Explain the procedure for determining this number for moulding sand. 7
2. (a) Explain the various cleaning and finishing processes used for castings. 7
- (b) Explain the principle of Arc Welding process with a neat sketch and also state its advantages. 7

3. (a) What are the common defects in welding ?
State their causes and remedies. 7
- (b) Distinguish clearly between drop forging
and press forging processes with reference
to the process and products obtained. 7
4. (a) What is recrystallisation temperature ?
Distinguish between hot working and cold
working with respect to this temperature. 7
- (b) Explain the principle of hydrostatic
extrusion with neat sketches. What makes
hydrostatic extrusion better than
conventional extrusion process ? 7
5. (a) Explain the different types of shearing
operations with neat sketches. 7
- (b) Briefly explain the process of wire drawing
and also state its advantages. 7
6. (a) Describe the processes of hot and cold
spinning and also state their advantages
and specific uses. 7
- (b) Explain the working of Electro-Hydraulic
Forming. 7

7. (a) What are the different plastic moulding processes ? With a neat sketch, explain blow moulding. 7
- (b) Explain how a grinding wheel is specified. Differentiate between Honing and Lapping. 7
8. Write short notes on any *four* of the following : $4 \times 3 \frac{1}{2} = 14$
- (a) Deep Forming
 - (b) Forging Defects
 - (c) Magnetic Pulse Forming
 - (d) Radiant Energy Welding
 - (e) Pattern Allowances
 - (f) Rolling of Bars and Shapes
-