

Department Of Industrial & Production Engineering

IPE-205: Manufacturing Processes-I

Class Test-III: Sheet Metal Forming Processes

Time: 40 minutes

Marks: 20

Name: _____

Student No.: _____

Date: _____

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|------|---|------|
| Q.1. | With simplified diagram, describe compound, progressive and transfer dies. | [07] |
| Q.2. | List some operations that can be classified as bending. Use sketches and explain design functions of the products. | [05] |
| Q.3. | A straight bead is being formed on a 1-mm thick aluminum sheet in a 20-mm-diameter die cavity. Considering springback, calculate the outside diameter of the bead after it is formed and unloaded from the die. Assume $Y = 150 \text{ MPa}$ and $E = 70 \text{ GPa}$. | [08] |