

Time: 3 Hours

Max Marks: 80

**Instructions:**

1. Question no. 1 is compulsory.
2. Answer any three questions of the remaining five questions.
3. Make suitable assumptions wherever necessary.
4. Figures to the right indicate full marks.

**Q.1. Attempt the following two questions: (10 marks each).**

- |   |    |
|---|----|
| a. Classify Production Processes in detail.     | 10 |
| b. Compare wood and metal as pattern materials. | 10 |

**Q.2. Attempt the following two questions: (10 marks each).**

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|---|----|
| a. Describe the CO <sub>2</sub> Shell Moulding Process. | 10 |
| b. Differentiate between MIG welding and TIG welding.   | 10 |

**Q.3. Attempt the following two questions: (10 marks each).**

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|--|----|
| a. Describe Rolling process in general with a neat labeled sketch. | 10 |
| b. Compare Drop Forging with Hammer Forging process.               | 10 |

**Q.4. Attempt the following two questions: (10 marks each).**

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|---|----|
| a. Describe the Blow Moulding process for plastics.                   | 10 |
| b. Describe Reaction Moulding of polymers with a neat labeled sketch. | 10 |

**Q.5. Attempt the following two questions: (10 marks each).**

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|---|----|
| a. How does a Gear Cutting process differ from a Gear Generating process? | 10 |
| b. How can a lathe machine be specified for the purpose of purchasing?    | 10 |

**Q.6. Attempt the following two questions: (10 marks each).**

- |   |    |
|---|----|
| a. What is meant by a 'Closed Loop Control System' and an 'Open Loop Control System'? | 10 |
| b. What is a Transfer Line Machine? Draw a neat labeled sketch.                       | 10 |