

(03Hours)

[Total Marks: 80]

N.B. 1) Question No 1 is **Compulsory**

- 2) Attempt any **three** out of the remaining **five** questions
- 3) Figures to the **right** indicate full marks
- 4) Draw neat **sketches** wherever necessary

Q.1 Differentiate between the following (**Any Four**)

[20]

- a) TIG and MIG welding
- b) Thermoplastics & Thermosetting plastics
- c) Hot working & Cold working
- d) Open Die Forging & Closed Die Forging.
- e) Patterns & Core Boxes

Q.2) a) Write short notes on the following

[10]

- i) Adhesive Bonding
- ii) Extrusion Process

b) Compare Press Forging & Drop Forging. b) Explain Weldability.

[10]

3. a) Explain - (i) Principle of gating (ii) Principle of risering.

[10]

b) Explain any two non-destructive techniques with sketch.

[10]

4. a) What is powder metallurgy? Why gears are manufactured by powder metallurgy? List the advantages of powder metallurgy.

[10]

b) Differentiate Welding, soldering and brazing.

[10]

5. a) Explain the following welding processes with their applications

[10]

- i) Resistance welding
- ii) Submerged arc welding

b) Explain in detail the significance of Production Process-I subject

[10]

6. Attempt the following

[20]

- a) Discuss types of flames in gas welding.
- b) Write short note on application of plastics in industries.
- c) Describe Ultrasonic testing process with a neat labelled sketch.
- d) Discuss Blow Moulding process

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