

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2022****Subject Code:3151912****Date:11-01-2023****Subject Name:Manufacturing Technology****Time:10:30 AM TO 01:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

- Q.1** (a) Classify manufacturing processes. **03**  
 (b) List out types of Pattern and explain any three pattern with a neat sketch. **04**  
 (c) Illustrate Pattern Allowances with a neat sketch. **07**

- Q.2** (a) What is casting? List out step by step procedure of sand casting. **03**  
 (b) Describe Die casting process with line diagram. **04**  
 (c) Explain Investment casting process. **07**

**OR**

- (c) Interpret casting defects along with reason of defects and its remedies. **07**

- Q.3** (a) Distinguish between welding, soldering, Brazing joining processes. **03**  
 (b) Classify welding and allied processes. **04**  
 (c) Illustrate Metal inert Gas welding with a neat sketch. **07**

**OR**

- Q.3** (a) Discuss about Oxy-hydrogen welding. **03**  
 (b) Classify Resistance welding and explain any seam welding process and its advantages. **04**  
 (c) Distinguish between Plasma and Laser Beam welding processes. **07**

- Q.4** (a) Explain Hot and Cold working Processes. **03**  
 (b) Illustrate wire and tube drawing processes. **04**  
 (c) Classify extrusion processes and explain forward and backward extrusion process. **07**

**OR**

- Q.4** (a) Define following terms; **03**  
 Deep drawing, Coining and Embossing  
 (b) Illustrate Metal working defects with reason and remedies of defects. **04**  
 (c) Categorize welding of cast iron and aluminum with its limitations. **07**

- Q.5** (a) Discuss about general properties of Plastics. **03**  
 (b) Describe Injection moulding processes with its pros and cons. **04**  
 (c) Elaborate Blow moulding process for bottle making process. **07**

**OR**

- Q.5** (a) Discuss about Riser design of casting . **03**  
 (b) Distinguish between Lapping, Honing, Buffing super finishing process. **04**  
 (c) Illustrate Barrel Tumbling and Burnishing process with a neat sketch. **07**

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