

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE- SEMESTER-V (NEW) EXAMINATION – WINTER 2020****Subject Code:3152510****Date:27/01/2021****Subject Name:Manufacturing Technology - II****Time:10:30 AM TO 12:30 PM****Total Marks: 56****Instructions:**

1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
<b>Q.1</b>	(a) State the importance of the manufacturing processes.	<b>03</b>
	(b) Define manufacturing process and give the broad classification of the manufacturing process.	<b>04</b>
	(c) Define the term pattern. List out various pattern materials and explain with their advantages and limitation.	<b>07</b>
<b>Q.2</b>	(a) Define the term (i) Refractoriness (ii) Permeability (iii) Collapsibility	<b>03</b>
	(b) Enlist the elements of gating system and state its function.	<b>04</b>
	(c) Explain cupola furnace with its sketch and also describes all zones.	<b>07</b>
<b>Q.3</b>	(a) Define welding and state the basic requirements of every welding process.	<b>03</b>
	(b) Describe the types of flame obtained in oxyacetylene gas welding with neat sketch.	<b>04</b>
	(c) Differentiate between MIG and TIG welding process.	<b>07</b>
<b>Q.4</b>	(a) Classify resistance welding processes.	<b>03</b>
	(b) Differentiate between forehand and Backhand welding techniques with neat sketch.	<b>04</b>
	(c) Differentiate between soldering and brazing.	<b>07</b>
<b>Q.5</b>	(a) Define the following terms: i) Ingot ii) Slab iii) Bloom	<b>03</b>
	(b) Distinguish hot working process and cold working process with merit and demerits.	<b>04</b>
	(c) Derive the equation for the roll bite angle.	<b>07</b>
<b>Q.6</b>	(a) Define the following metal working processes i) Embossing ii) Bending iii) Spinning .	<b>03</b>
	(b) Explain the spring back effect.	<b>04</b>
	(c) Define drawing process and explain drawing operations with sketch.	<b>07</b>
<b>Q.7</b>	(a) Classify plastic material.	<b>03</b>
	(b) Explain barrel tumbling process.	<b>04</b>
	(c) Describe the injection moulding process of plastic with neat sketch.	<b>07</b>
<b>Q.8</b>	(a) Define the following terms: i) Lapping ii) Honing iii) Buffing	<b>03</b>
	(b) Explain extrusion process for thermosetting plastic.	<b>04</b>
	(c) Write short note on powder coating.	<b>07</b>

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