

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**B.VOC- SEMESTER-II EXAMINATION – SUMMER 2025**

**Subject Code:21120301**

**Date:21-05-2025**

**Subject Name: Manufacturing Processes**

**Time:10:30 AM TO 12:30 PM**

**Total Marks:50**

**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.

	<b>Marks</b>
<b>Q.1</b> (a) Write the selection process for the manufacturing process.	<b>05</b>
(b) What are the different types of moulding sand?	<b>05</b>
<b>Q.2</b> (a) What is manufacturing? Explain with examples.	<b>05</b>
(b) Explain the construction and operation of Cupola furnaces with a neat sketch.	<b>05</b>
<b>OR</b>	
(b) Describe the centrifugal casting process with a neat sketch.	<b>05</b>
<b>Q.3</b> (a) Explain bending operations and types of bending operations.	<b>05</b>
(b) Explain squeezing with a neat sketch.	<b>05</b>
<b>OR</b>	
<b>Q.3</b> (a) Explain the forming operations in sheet metal operations with a neat sketch.	<b>05</b>
(b) Explain the cutting operation in sheet metal operations with a neat sketch.	<b>05</b>
<b>Q.4</b> (a) Explain the defects in rolled parts.	<b>05</b>
(b) Write down the advantages and limitations of tube extrusion.	<b>05</b>
<b>OR</b>	
<b>Q.4</b> (a) Explain any three cold working processes.	<b>05</b>
(b) Compare hot working and cold working.	<b>05</b>
<b>Q.5</b> (a) Explain brazing and its types.	<b>05</b>
(b) Explain soldering.	<b>05</b>
<b>OR</b>	
<b>Q.5</b> (a) List out the defects in the welding process.	<b>05</b>
(b) Differentiate between arc welding and gas welding.	<b>05</b>

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