

**GUJARAT TECHNOLOGICAL UNIVERSITY****BVOC - SEMESTER-IV EXAMINATION – WINTER 2022****Subject Code:1140301****Date:13-12-2022****Subject Name:Mass Production Devices****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.

		Marks
<b>Q.1</b>	(a) How to select cutting tools?	<b>05</b>
	(b) Explain ISO designation of Turning Inserts.	<b>05</b>
<b>Q.2</b>	(a) Explain various types of locators in detail.	<b>05</b>
	(b) Explain 3-2-1 location principle with a neat sketch for the cylinder.	<b>05</b>
	<b>OR</b>	
	(b) State merits of power clamping over mechanical clamping.	<b>05</b>
<b>Q.3</b>	(a) Explain strap clamp with neat sketch.	<b>05</b>
	(b) What are the main advantages of using jigs and fixtures in mass production?	<b>05</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Explain screw clamp with neat sketch.	<b>05</b>
	(b) Write a short note on Jig bushes.	<b>05</b>
<b>Q.4</b>	(a) Differentiate between jigs and fixtures.	<b>05</b>
	(b) Classify the Jigs in detail.	<b>05</b>
	<b>OR</b>	
<b>Q.4</b>	(a) Describe the design principles for jigs and fixtures.	<b>05</b>
	(b) List the design steps for jigs and fixtures.	<b>05</b>
<b>Q.5</b>	(a) Explain Box jig with a neat sketch.	<b>05</b>
	(b) Explain fool proofing?	<b>05</b>
	<b>OR</b>	
<b>Q.5</b>	(a) Explain channel jig with a neat sketch.	<b>05</b>
	(b) Classify the Fixtures in detail.	<b>05</b>

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