

GUJARAT TECHNOLOGICAL UNIVERSITY**BVOC – SEMESTER IV– EXAMINATION – WINTER 2021****Subject Code:1140301****Date:29/12/2021****Subject Name: Mass Production Devices****Time:02:30 PM to 04:30 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
Q.1	(a) How to select cutting tools?	05
	(b) What is Power clamping? State merits of power clamping over mechanical clamping.	05
Q.2	(a) Explain various types of locators in detail.	05
	(b) Explain 3-2-1 location principle with neat sketch for cube.	05
	OR	
	(b) Explain 3-2-1 location principle with neat sketch for cylinder.	05
Q.3	(a) What is meant by clamping? List the types of clamps.	05
	(b) How to identify Turning inserts?	05
	OR	
Q.3	(a) What are the main advantages of using jigs and fixtures in mass production?	05
	(b) Write short note on Jig bushes.	05
Q.4	(a) Differentiate between jigs and fixtures.	05
	(b) Classify the Jigs and Fixtures.	05
	OR	
Q.4	(a) Describe the design principles for jigs and fixtures.	05
	(b) List the design steps for jigs and fixtures.	05
Q.5	(a) Explain Box jig with neat sketch.	05
	(b) Explain any one fixture with neat sketch.	05
	OR	
Q.5	(a) Explain channel jig with neat sketch.	05
	(b) Draw a suitable drill jig to drill 4 holes of 10mm diameter at 70mm PCD on 120mm diameter and 60mm thick MS plate.	05
