Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER-VI • EXAMINATION – SUMMER- 2015

Subject Code: 163404 **Date: 14/05/2015**
Subject Name: Tool Design
Time: 10.30am-01.00pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Write down any three Press operations with simple sketch.	**07**
	(b)	Describe Tap. Write the nomenclature of Tap with neat sketch.	**07**
Q.2	**(a)**	Define Press. Explain the working principle of OBI (Open Back Inclinable) Press.	**07**
	(b)	Explain any three design consideration for Drawing Dies.	**07**
		OR	
	(b)	Explain the design of end mill cutters with sketch.	**07**
Q.3	**(a)**	Describe Inverted Die with neat sketch.	**07**
	(b)	Explain any three principle of metal cutting with respect to Press Tool Design.	**07**
		OR	
Q.3	**(a)**	Describe Compound Die with neat sketch.	**07**
	(b)	Draw and explain about Piercing Die Design.	**07**
Q.4	**(a)**	Explain the principle of location. Define Pin location, Angular and V – location.	**07**
	(b)	Write the Design Principles for Drilling Jigs.	**07**
		OR	
Q.4	**(a)**	Write the design principles common to Jigs & Fixtures.	**07**
	(b)	Write the design principles for Milling Fixture.	**07**
Q.5	**(a)**	Classify Forging Die. Explain any three major Forging design consideration.	**07**
	(b)	Describe Die design for Machine Forging.	**07**
		OR	
Q.5	**(a)**	Define Bending operation. Explain any two Bending Terminologies.	**07**
	(b)	Explain the design principle of bend radius and width of die opening.	**07**

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