

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI • EXAMINATION – SUMMER 2013

Subject Code: 163404

Date: 29-05-2013

Subject Name: Tool Design

Time: 10.30 am - 01.00 pm

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) Explain in brief about Progressive Die with neat sketch. **07**
(b) Explain about nomenclature of a single point cutting tool with help of sketch. **07**
- Q.2** (a) Define piercing, notching and shaving operations with simple sketch. **07**
(b) Classify press. Explain about Open Back Inclined press with simple sketch. **07**
- OR**
- (b) Describe Combination Die with neat sketch. **07**
- Q.3** (a) Write the classification of Milling fixture. What is the importance of location in fixture? **07**
(b) What is the purpose of clamping and explain about various clamping devices. **07**
- OR**
- Q.3** (a) Write the types of drilling jigs. Write the design principles for drill bushings. **07**
(b) Explain the design principles common to jigs and fixtures. **07**
- Q.4** (a) Write short notes about V-bending, Air bending and spring back. **07**
(b) Write the design principle of bend radius and bend allowance. **07**
- OR**
- Q.4** (a) Distinguish between bending die and drawing die. **07**
(b) Write the various types of forming dies. Explain about any one die. **07**
- Q.5** (a) Write the classification of forging dies. Explain about any one die. **07**
(b) Write the factors to be considered for forging design. **07**
- OR**
- Q.5** (a) How to determine the stock size in closed and open die forging? **07**
(b) Write short notes about flash trimming and hole piercing. **07**
