	Seat No.:	Enrolment No
GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-VI • EXAMINATION – SUMMER • 2014		

Subject Code: 163404 Date: 28-05-2014 **Subject Name: Tool Design** Time: 10:30 am - 01:00 pm **Total Marks: 70 Instructions:** 1. Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. Draw a single point cutting tool and mark its parts. What is the importance of Q.1 (a) different angles in metal cutting? **07** Discuss the nomenclature of the drill. Write the different types of drills. 07 **(b) Q.2** Describe progressive die with the help of neat sketch. 07 (a) What is strip layout? How to find out strip layout with suitable example? **(b) 07** OR Write the different methods of punch holding. Explain about any one method **(b)** with neat sketch. **07 Q.3** What is spring back in bending method and how it can be prevented during (a) operation? **07** Write short notes about bottoming dies and whipping dies. 07 **(b)** OR Describe about embossing die and coining die. **07 Q.3** (a) Write any five factors affecting in drawing operation. How do you determine **(b) 07** blank size in drawing die? 0.4 (a) Define the following: Fullering, Edging & Flattering 07 Describe the tools used for flash trimming and hole piercing in forging press. **(b) 07** 0.4 Write the various factors affecting in forging die design. Explain in brief about (a) any two design factors. 07 **(b)** Write short notes on reamers and broaches. **07** What are the difference between jigs and fixtures? **07 Q.5** (a) Describe the drilling jig's channel type jig and template type jig with suitable **(b)** sketch. **07 Q.5** How many degrees of freedom are there for an object in space? Describe 3-2-1 (a) principle of location. 07 Write the classification of Press. Explain about any one press with sketch. 07 **(b)**
