Seat No.:	Enrolment No.

Subject Code: 181903

Subject Name: Production Technology

GUJARAT TECHNOLOGICAL UNIVERSITY

Date:07/12/2015

BE - SEMESTER-VIII EXAMINATION - WINTER 2015

Time: 2:30pm to 5:00pm **Total Marks: 70 Instructions:** 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. Derive various force equations can be derived using Merchant Circle diagram. 07 **Q.1** (b) Draw neat sketch of single point cutting tool showing the six major angles. 07 Explain the need of providing these angles. **Q.2** (a) Explain the need of unconventional machining methods. With neat sketch **07** explain ECG method. Explain with neat sketches compound die and progressive die. 07 **(b)** OR (b) Explain Design of cam for single spindle automat Transfer Machines with **07** suitable example. **Q.3** (a) Explain significance of center of pressure in design of press tools. How it is **07** calculated? (b) How the Presses are classified? Explain the methods of reducing the force 07 requirement in press work. OR 0.3 List various principles of location and explain the 3-2-1 Principal of Location **07** with neat sketches. What is drilling Jig? Explain the various types of bushes used in drilling jig. **(b) 07** Define tool life and explain in brief the factors affecting it. 07 **Q.4** (a) Explain in detail tool dynamometer. 07 **(b)** Discuss following thread manufacturing methods with neat sketch (i) Chasing **07 Q.4** (a) (ii) Rolling (iii) Tapping. Explain methods of temperature measurement at tool-work interface. **07 (b)** Discuss the differences between Turret and Capstan lathes. 07 **Q.5** (a) Write important functions of dielectric fluid and electrolyte. Also write various 07 **(b)** types of commonly used dielectric fluid and electrolyte. **Q.5** (a) Explain the different machine tool structures. 07 (b) Explain in brief what you understand by bar type and chucking type machines. **07** ******

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