

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER– III(OLD) EXAMINATION – SUMMER 2019

Subject Code: 131903

Date: 19/06/2019

Subject Name: Manufacturing Process-I

Time : 02:30 PM TO 05:00 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)** Classify machine tools in detail. Explain types of motions in machine tools with examples. **07**
- (b)** Draw a block diagram of an Engine Lathe and label all parts of it. **07**
- Q.2 (a)** Explain with neat sketch up milling and down milling process. Describe its advantages and limitations. **07**
- (b)** Explain Glazing Loading Trueing and Dressing of grinding wheel. **07**
- OR**
- (b)** Explain the standard marking system for grinding wheels. **07**
- Q.3 (a)** Enlist various alignment tests carried out on Lathe machine to check accuracy level. Describe any two with neat sketch. **07**
- (b)** Classify Milling machine. Explain principal parts of Column and Knee type Horizontal Milling machine with neat sketch. **07**
- OR**
- Q.3 (a)** Enumerate various milling operations. Explain any three of them with neat sketch. **07**
- (b)** Clearly differentiate the Capstan and Turret Lathe. **07**
- Q.4 (a)** State comparison of shaper and planer. What are advantages and disadvantages of shaping and planning as compared to other operations **07**
- (b)** Draw neat sketch of radial drilling machine and name its parts, explain its working. **07**
- OR**
- Q.4 (a)** List various types of drilling machine and explain with a neat sketch gang drilling machine. **07**
- (b)** Differentiate between open side planner and Standard double housing planner. **07**
- Q.5 (a)** Classify Broaching machine. Explain Horizontal Pull Type Broaching machine **07**
- (b)** Explain in short: Shaper, Planner and Slotter Machine. In which machine, quick return mechanism is used? Explain it in brief. **07**
- OR**
- Q.5 (a)** List the principal types of metal cutting saws. Describe working of reciprocating and circular sawing machine. **07**
- (b)** With a neat sketch explain the working of horizontal boring machine stating its advantages and limitations. **07**
