

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III (New) EXAMINATION – WINTER 2018****Subject Code: 2133404****Date: 05/12/2018****Subject Name: Basic Manufacturing Processes****Time: 10:30 AM TO 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 principle of Lathe and name some operations which can be carried out on lathe **03**
(b) Explain the construction of tailstock of a lathe with a diagram. **04**
(c) Explain any four work holding devices in a lathe with suitable diagrams. **07**
- Q.2** (a) Draw a block diagram of shaper **03**
(b) Differentiate shaper and Planer **04**
(c) Explain the crank & slotted link mechanism of quick return of the ram with a diagram. **07**
- OR**
- (c) Explain any four operations performed in a shaping machine with diagrams. **07**
- Q.3** (a) Define 'cutting speed' in a drilling machine. **03**
(b) Explain any two drill holding devices. **04**
(c) Explain any four operations performed in a drilling machine. **07**
- OR**
- Q.3** (a) Compare multi spindle drilling machine and Gang drilling machine. **03**
(b) Explain sensitive drilling with neat sketch **04**
(c) How do you classify drilling machines? Explain Radial arm drilling machine with neat sketch **07**
- Q.4** (a) Write down the name the milling cutters. **03**
(b) What are the different milling machine operations **04**
(c) Draw a neat diagram of a milling machine and explain its construction. **07**
- OR**
- Q.4** (a) What are the methods of indexing **03**
(b) What are the differences between a plain milling machine and a universal milling machine **04**
(c) Draw a neat diagram of a plain milling cutter and explain its nomenclature **07**
- Q.5** (a) Write down any four grinding machines. **03**
(b) Explain 'Dressing' of a grinding wheel with a diagram **04**
(c) Write notes on **07**
1) Precision grinding
2) Polishing
3) Buffing
4) Scraping
- OR**
- Q.5** (a) What are the reasons for chattering? **03**
(b) Explain 'Truing' of a grinding wheel **04**
(c) Explain a surface grinder with a diagram. **07**
