

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-IV (NEW) EXAMINATION – WINTER 2020****Subject Code:3141908****Date:19/02/2021****Subject Name:Manufacturing Processes****Time:02:30 PM TO 04:30 PM****Total Marks:56****Instructions:**

1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) What is Boring Process? Compare Boring and Reaming process. **03**
 (b) Explain Horizontal Boring Machine with neat sketch. **04**
 (c) Explain Different Types of Broaching Machines with neat sketch. **07**
- Q.2** (a) With the help of figure explain “Taper turning by swiveling the compound rest method **03**
 (b) Give the comparison between a turret lathe and capstan lathe. **04**
 (c) Explain primary and auxiliary motions with reference to machine tool. **07**
- Q.3** (a) Draw a neat sketch of single point cutting tool and show various angles on sketch **03**
 (b) Differentiate between multi spindle drilling machine and Gang drilling machine. **04**
 (c) Explain about crank and slotted link quick return mechanism in shaper machine. **07**
- Q.4** (a) What is dressing of grinding wheel? Which operation is required to change shape of grinding wheel? **03**
 (b) Explain centre less internal grinding operation with neat diagram. **04**
 (c) What is reamer? Explain different types of reamer. **07**
- Q.5** (a) Give difference between Shaper and Planner. **03**
 (b) Explain about dressing and truing of grinding wheel. **04**
 (c) Explain Drilling and its allied operation in details with application. **07**
- Q.6** (a) Enlist the operations performed on Lathe machine. **03**
 (b) Write a short note on: “Band Sawing Machine” **04**
 (c) With the help of figure explain ‘Hydraulic’ shaper mechanism. **07**
- Q.7** (a) Differentiate between up milling Process and down milling Process. **03**
 (b) What is indexing? Describe direct indexing, with example. **04**
 (c) With the help of a neat sketch explain the column and knee type milling machine and name its main parts. **07**
- Q.8** (a) State the working principle of milling machine with Neat sketch. **03**
 (b) Explain any four types of milling operations using neat sketches. **04**
 (c) Explain any one Alignment test of milling machine with neat sketch. **07**
