

Seat No.: \_\_\_\_\_

Enrolment No.: \_\_\_\_\_



# C U SHAH UNIVERSITY

Faculty of Technology and Engineering  
B. Tech-IV UNIVERSITY EXAM MAY -2015

**Subject Code: 4TE04MPR1**

**Date: 23/05/2015**

**Subject Name: Manufacturing Processes-I**

**Total Marks: 70**

**Instructions:**

- 1. Make suitable assumptions whenever necessary.**
- 2. Figures to the right indicate full marks.**
- 3. Question one & four are compulsory.**

Section –I

- Q-1 Attempt the following.
- (a) Give the difference between primary motion and auxiliary motion. 02
  - (b) What is the function of lathe? Name the different constructional parts of lathe machine. 02
  - (c) Classify the boring machine. 02
  - (d) What is manufacturing process? 01
- Q-2 (a) Give the name of different taper turning method. And explain any one 04
- (b) Classify the drilling machine. Explain portable drilling machine 05
- (c) Explain jig boring machine. 05
- OR
- Q-2 (a) Give the specification of lathe machine. 04
- (b) Explain the method of mounting boring tool for horizontal boring machine. 05
- (c) Differentiate column type and box type upright drilling machine. 05
- Q-3 (a) Describe the floor type and table horizontal boring machine. 04
- (b) Give the different name of operation performed in drilling machine. And explain any four with neat sketch. 05
- (c) Write short note on rest used in lathe machine. 05
- OR
- Q-3 (a) Explain the different operation performed in horizontal boring machine. 04
- (b) Explain the spindle head assembly in drilling machine with neat sketch. 05
- (c) Explain the alignment test on lathe machine. 05

Section –II

- Q-4 Attempt the following.
- (a) Classify the shaping machine. 02
  - (b) Give short description on continuous broaching machine. 02
  - (c) What is the function of arbor in milling machine? 02
  - (d) What is the function of precision grinding machine. 01

- Q-5 (a) Explain centre less grinding process with neat sketch 04  
(b) Give the difference between plain and universal milling machine 05  
(c) Write short note crank slotted mechanism for shaper. 05
- OR
- Q-5 (a) Write a note about grinding wheel parameters influencing the process in 04  
brief.  
(b) Describe various differences between shaper & planner. 05  
(c) Classify broaching machine. Explain push and pull type broaching with 05  
neat sketch.
- Q-6 (a) Write a short note on up milling process. 04  
(b) Explain the various type operations performed on plainer. 05  
(c) Explain different indexing methods used in milling machine. 05
- OR
- Q-6 (a) Give the name standard milling cutter. And explain T slot type milling 04  
cutter.  
(b) Classify the sawing machine. Explain circular saw. 05  
(c) Explain grinding wheel designation system. 05