

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2018****Subject Code: 2172003****Date: 26/11/2018****Subject Name: Manufacturing Technology - II****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) How a particular manufacturing method is selected for a product? Explain with a list of factors of selection of method. **03**
(b) Explain the concept of line and end standard in measurement giving examples. **04**
(c) Explain the effect of moisture and clay content on molding sand. **07**
- Q.2** (a) Explain 'Metal Spinning' with neat sketch. **03**
(b) What is principle of extreme positions in jigs and fixtures? Explain with sketch and example. **04**
(c) Write a short note on 'Gas welding'. **07**
- OR**
- Q.3** (c) Write a short note on 'submerged arc welding(SAW)'. **07**
(a) Explain 'Principle of Extrusion'. Also explain the 'extrusion ratio'. **03**
(b) Differentiate between embossing and coining. **04**
(c) What is GFN ? Briefly discuss its effects on molding sand properties. **07**
- OR**
- Q.3** (a) With neat sketch, discuss the principle of rolling. **03**
(b) How arc welding machines are specified? **04**
(c) Sketch the cross section of a sand mold which is ready for pouring. Label the various parts of it. **07**
- Q.4** (a) How a tube and rod drawing is done? Show sketches. **03**
(b) Enlist the various allowances provided to the pattern. Briefly explain any one. **04**
(c) How a fizzy drink can is manufactured? Explain each step with sketch. **07**
- OR**
- Q.4** (a) Briefly discuss 'shrinkage defects' in casting giving reasons and remedy. **03**
(b) What is an edge preparation for arc welding? Explain. **04**
(c) Write a short note on 'Investment Casting' with all the steps in sequence. **07**
- Q.5** (a) What are the general design considerations for jigs and fixtures? **03**
(b) Show how a sine bar is used for angular measurement. **04**
(c) With neat sketch of set up, write a short note on EDM. Explain the variation of process parameters. **07**
- OR**
- Q.5** (a) What is 'Taylor's principle' of gauging ? Explain. **03**
(b) What are the main elements of jigs and fixtures ? Explain any one with example. **04**
(c) With neat sketch of set up, write a short note on AJM. Explain the variation of process parameters. **07**
