

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII • EXAMINATION – WINTER • 2014

Subject Code: 172003

Date: 04-12-2014

Subject Name: Manufacturing Technology-II

Time: 10:30 am - 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) Briefly mention procedural steps to find GFN by laboratory experiment. Also state its importance in moulding sand testing. **07**
- (b) State the steps of making a fizzy drink can from sheet metal with a neat sketch of each operation. **07**
- Q.2** (a) State different principles of jigs and fixture design. Explain any one of them with neat sketch. **07**
- (b) With neat sketch explain about Electric Discharge Machining(EDM) and its parameters with equipments etc. **07**
- OR**
- (b) With neat sketch explain Abrasive Jet Machining(AJM) and its parameters. **07**
- Q.3** (a) Write a short note on 'Die casting'. **07**
- (b) What are the steps to measure an angle with sine bar and slip gauge? Explain with neat sketch. **07**
- OR**
- Q.3** (a) Write a short note on 'Centrifugal casting'. **07**
- (b) Differentiate between line standard and end standard of measurement giving examples and neat sketch. **07**
- Q.4** (a) Briefly discuss the effect of varying arc welding process variables on resultant bead parameters for SMAW and SAW using bead on plate test. **07**
- (b) Explain principle and types of extrusion. **07**
- OR**
- Q.4** (a) Enlist different forging operations and explain any one in detail. **07**
- (b) State various design considerations for casting for avoiding casting defects. **07**
- Q.5** (a) Explain work piece control with reference to jigs and fixtures. **07**
- (b) Differentiate between jigs and fixtures (with examples and diagrams) in tabular form. **07**
- OR**
- Q.5** (a) Describe various resistance welding processes with sketches. **07**
- (b) How electrodes are specified? Explain in brief. **07**
