

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (Old) EXAMINATION – WINTER 2019****Subject Code: 151901****Date: 09/12/2019****Subject Name: Manufacturing Processes - 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) List the various manufacturing processes. Discuss various factors involved for selection of manufacturing process for producing a given component. **07**
- (b) Define the term pattern. List out the materials commonly used for pattern. State advantages of wood as pattern material. **07**
- Q.2** (a) What is gating system? What are its functions? State types of gate with its advantages. **07**
- (b) State the principle of centrifugal casting and explain its working with neat sketch. **07**
- OR**
- (b) State and explain various types of casting defects, causes of defects and its remedies. **07**
- Q.3** (a) Explain various flames produced in an Oxy-acetylene gas welding. **07**
- (b) Discuss with neat sketch MIG welding process. State its advantages, limitations and applications. **07**
- OR**
- Q.3** (a) Distinguish arc welding process and resistance welding process briefly. **07**
- (b) Explain laser beam welding. State its applications. **07**
- Q.4** (a) What is elastic and plastic deformation? Explain in details. **07**
- (b) List the factors influencing rolling process. Explain the effect of roller diameter and metal friction on rolling process. **07**
- OR**
- Q.4** (a) Discuss strain rate effect and metallurgy structure in metal working. **07**
- (b) Compare direct and indirect extrusion. **07**
- Q.5** (a) Explain compression moulding and blow moulding process. **07**
- (b) Explain with sketch and application: Cylindrical and Center less grinding process for finishing operation. **07**
- OR**
- Q.5** (a) Enlist types of super finishing processes. Discuss the selection criteria for appropriate super finishing process. **07**
- (b) Classify the types of plastics along with the general properties of the plastics. **07**
