

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (OLD) EXAMINATION – WINTER 2018****Subject Code:151901****Date: 27/11/2018****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) What is pattern? State the purpose of pattern. Name various factors which are considered for selection of pattern material. 07
- (b) Define and Discuss: Fusion zone and Heat affected zone 07
- Q.2 (a) Describe forge welding process in detail. 07
- (b) Explain steps involved in investment casting with its advantages and limitations. 07
- OR**
- (b) Explain: Straight polarity and reverse polarity. Explain also effect of polarity on weld quality. 07
- Q.3 (a) Why oxy-acetylene flame cannot be used inside of pipes or structures subjected to oxygen depletion? 07
- (b) Describe shell moulding process. 07
- OR**
- Q.3 (a) Explain theory of rolling with neat sketch and also explain forces involved in hot rolling 07
- (b) Explain: Drop forging and press forging. 07
- Q.4 (a) Distinguish between wire drawing and tube drawing in detail. 07
- (b) Explain: Metal spinning with its advantages and application 07
- OR**
- Q.4 (a) Explain different shearing operations 07
- (b) Explain: (i) Ingot (ii) Bloom (iii) Slab (iv) Billet 07
- Q.5 (a) What do you understand by 'Roll Piercing'? Explain with a simple sketch. List advantages of the same 07
- (b) Discuss: (i) Barrel tumbling (ii) Burnishing (iii) Buffing 07
- OR**
- Q.5 (a) Discuss Transfer moulding and Injection Moulding with neat sketch 07
- (b) Explain how grain structure is affected during hot cold working 07
