Seat No.:	Enrolment No.:

GUJARAT TECHNOLOGICAL UNIVERSITY

DIPLOMA ENGINEERING - SEMESTER - III • EXAMINATION - WINTER - 2016

Subject Code: 3335505 Date: 28-11-2016

Subject Name: FABRICATION TECHNOLOGY-1

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.
- 4. Each question carry equal marks (14 marks)
- **Q.1** Define structure & Classify metallic type structure. 07 (a) Find out cost & weight of following sections for 1 Meter length (Take (b) 07 density/sp. weight of material = 7.85 gm/cm^3 , Take cost of material = 60RS./kg), Data For I-Section:-

SR. NO.	DIM	DIMENSION IN mm				
	Н	В	$t_{\rm w}$	$t_{\rm f}$		
1	250	125	10	10		

- **Q.2** (a) Describe Material Test Certificate in detail 07 Prepare a geometrical construction & Write the steps followed for construction. (b) 07 Draw an angle without using protector (m ∠CAB=150°) and divide this angle without using protector in to $\theta 1 = 15^{\circ}$, $\theta 2 = 45^{\circ}$, $\theta 3 = 60^{\circ}$, $\theta 4=90^{\circ}$ OR
 - (b) List various structural fabrication codes and standards & Describe major **07** content of AWS D1.1
- 0.3 Draw welding symbol with illustration & designation (any seven) 07 (a) **07**
 - (b) Classify engineering materials for structural fabrication.

Q.3 Draw typical industrial shade building & indicate various parts of industrial (a) 07 shade in it.

- Define "steel" & List seven advantages of steel. (b) 07
- **Q.4** Define rivet & Draw process of riveting. **07** (a) Classify various work holding, marking and measuring tools. 07 (b)
- Describe Advantages and disadvantages of welding. 07 **Q.4** (a) Describe function of depth micrometer, feeler gauge, combination set, inside (b) 07 & outside caliper
- Describe oxy-fuel cutting process with neat sketch. 07 0.5 (a) Describe function of quality control department. (b) 07
- OR List types of machinery used in erection work. **Q.5** (a) 07 Describe principle of "shearing" with neat sketch & list main variables for **07** (b)
 - shearing process.
