

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – III • EXAMINATION – SUMMER- 2017

Subject Code: 3335505**Date: 05-05 -2017****Subject Name: Fabrication Technology - 1****Time: 02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

Q.1 (a) Describe the gas cutting process in detail with neat sketch and label its elements **07**

(b) Prepare chart of 7 -Commercial forms of metal in a table format. **07**

Q.2 (a) Draw a chart for classification of fabrication structure based on various types of application. **07**

(b) Find Out COST & Weight Of Following T-Sections For 5 M Length **07**
 (Take Density/ Sp. Weight Of Material = 7.80 gm / Cm³)
 (Take Cost Of Material = 50 RS./ Kg)
 All Dimensions' are in m m

SR. NO.	DIMENSION IN MM			
	H	B	T _w	T _f
1	80	80	5	4

OR

(b) Described in brief : with neat sketch a elements / parts of roof truss. **07**

Q.3 (a) Prepare a geometrical construction under following condition by using compass, ruler but without protector. Write the steps of construction for it. **07**

Draw an angle without using protector ($\angle CAB=180^\circ$) and divide this angle in to

$$\theta_1=15^\circ, \theta_2=45^\circ, \theta_3=90^\circ, \theta_4=150^\circ,$$

(b) List out the fabrication operation work performed in structural fabrication work shop Describe any one of them **07**

OR

Q.3 (a) Define and Describe the process of 1) leveling, 2) plumbing **07**

(b) Draw neat sketch of work holding device as a “vise” and Describe them in brief. **07**

Cont...2

Q.4 (a) Compare various fabrications methods / process over welding process. **07**

(b) List out the various name of Third party inspection agencies with their abbreviation. Describe in brief their Field or Area of working /operations /servicing rendering. **07**

OR

Q.4 (a) 1. Classify the various types of punches. **07**
2. Draw their neat sketch Label its element.
3 States its typical application

(b) Estimate the COST & weight of 5 m HEXAGONAL BAR sections **07**
(Assume Density / Sp. Weight of material = 7.85 gm/ cm^3
Cost of raw-material = 70 RS./ kg)

DATA FOR HEXAGONAL BAR :-

SR. NO.	DIMENSION A/F (ACROSSFLATE)	ARE A	VOL.	WEIG HT	Total Cost of 5m
	MM	Cm^2	Cm^3	KG/M	Rs
1	120				

Q.5 (a) Describe the advantages ferrous materials / (low carbon steels) as a construction material for structural steel fabrication work. **07**

(b) Described in brief : - Column fabrication & assembly **07**

OR

Q.5 (a) Describe in brief with neat Sketch terminology of bolts. **07**
Classify Types of bolts

(b) Describe in brief the general notes given / use in structural fabrication drawing **07**
