

GUJARAT TECHNOLOGICAL UNIVERSITY**Diploma Semester -III Remedial Examination May - 2011****Subject code: 335504****Subject Name: Fabrication Technology - I****Date: 28 /05 /2011****Time: 02.30 pm – 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. Assume suitable data if necessary

Q.1

Estimate the COST & weight of following sections and filling gaps in given table for 1 Meter / unit length

14

(Assume -- Density/ sp. Weight of material = 7.85 gm/ cm^3
 Cost of raw-material = 80 RS./ kg)

1. DATA FOR T-SECTION :-

S.R. NO.	DIMENSION IN MM				X-Sec AREA	VOLUM E	WEIGH T	Total cost
	H	B	T_w	T_f	Cm^2	Cm^3	Kg/M	Rs.
1	100	100	10	10				

2. DATA FOR ANGLE :-

S.R. NO.	DIMENSION IN MM			X-Sec AREA	VOLUME	WEI GHT	Total cost
	H	B	T	Cm^2	Cm^3	Kg/M	Rs.
1	50	50	6				

3. DATA FOR I- SECTION :-

S.R. NO.	DIMENSION IN MM				X-Sec AREA	VOLUME	WEIGHT	Total cost
	H	B	T_w	T_f	Cm^2	Cm^3	Kg /M	Rs.
1	100	50	4	5				

Q.2

- (a) Prepare a geometrical construction under following condition by using compass, ruler but without protector. Write the steps of construction

07

- 1) Prepare a rectangle having a length $L = 50 \text{ mm}$ and width $W = 30 \text{ mm}$ by only

- 2) Draw a perpendicular straight line in a given (line segment) $\overline{AB} = 80 \text{ mm}$ from point A (i.e. End point)

- (b) Explain the method of erection of Industrial shade steel structure.

07**OR**

- (b) Explain in brief

07

- 1) Stage of inspection

- 2) Classify the types of inspection

- 3) Inspection documentation

Q.3

- (a) Classify the methods of cutting and explain oxy-fuel gas cutting process In brief with neat sketch.

07

- (b) Explain in brief Laying out operation

07**OR**

- Q.3** (a) 1) Explain Trammels with neat sketch. **07**
 2) Classify the Hammers in chart form.
 Label its various parts/elements.
 Give its specification.
 States its typical application
- (b) 1) List out the names Third party inspection agencies with their Abreviation. **07**
 Explain their importance in fabrication industries
 2) List out the names various codes and National & Inter National standard used in structural fabrication industries and state their abbreviation

Q.4

- (a) 1) Explain safe and correct practice in bench work and fitting shops. **07**
 2) classify the files on various basis
- (b) Explain in brief : Fabrication process as a **07**
 1) Straightening
 2) Bending and
 3) Rolling operation of a various section

OR

- Q. 4** (a) 1) Explain in brief: **07**
 Fastening method operation by fastening items
 2) List out the application of product of structural fabrication work.
- (b) Explain in brief **07**
 1) Storing, 2) Handling , 3) Stacking ,
 4) Color coding of structural steel.

Q.5

- (a) Prepare chart of commercial forms of metal for (Any -7) state their typical application **07**
- (b) Explain in brief Truss fabrication & their assembly **07**

OR

- Q.5** (a) Estimate the COST & weight of following sections and filling gaps in given table for 1Meter ./ unit length **07**

(Assume -- Density/ sp. Weight of material = 7.85 gm/ cm^3
 Cost of raw-material = 80 RS./ kg)

DATA FOR HEXAGONAL BAR :-

Sr. NO	DIMENSION A/F (ACROSS FLATE)	AREA	VOLUME	WEIGHT	Total cost
	MM	Cm^2	Cm^3	KG/M	Rs
1	100				

- (b) Explain characteristics of good fabrication supervisor as a leader. **07**
