

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Semester -III Remedial Examination April - 2010

Subject code: 335504

Subject Name: Fabrication Technology - 1

Date: 23 / 04 / 2010

Time: 03.00 pm – 05.30 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. English version Authentic

- Q.1** Explain in brief with neat sketch **14**
1. Marking & Measuring tools & Equipment used in fabrication work shop (any four)
 2. Work holding devise used in fabrication work shop (any four)
- Miscellaneous tools & Equipment used in fabrication shop (any four)
- Q.2**
- (a) Explain Marking & Measuring procedure with respective tools & equipment with their neat sketch. **07**
- (b)
1. Explain the various / different rules of correct / right ways of working observed in fitting shop. **07**
 2. Explain in brief various stages of inspection.
- OR**
- (b)
1. Define the term “ Fabrication”. **07**
 2. Classify the process / method of fabrication.
 3. Enlist the advantages and limitations of welded fabrication over other method of manufacturing.
- Q.3**
- (a) Prepare a chart for the commercial forms of metals in detail (for any four product.) **07**
- (b)
1. Draw a neat sketch of square frame made by 90° cutout fit-up & set-up. **07**
 2. Prepare a bill of material for it.
 3. Write a sequence of operation for it.
- OR**
- Q.3** (a) Explain in brief **07**
1. Knowledge, skill & attitude expected / required for fabrication shop floor supervisor.
 2. Drawing room operation.
- (b) Explain in brief **07**
1. Storing, stacking, handling and color coding of structural steels.
 2. Specific requirement of codes & standards.
- Q.4**
- (a)
1. Define the term standardization and tolerance. **07**
 2. State the advantages of standardization.
 3. Enlist Different types of cranes.
- (b) Calculate / find out the weight of M. S. round bar and rectangle bar having following data **07**

- Specific weight = 7.85 gm / cm^3
- Length of bar = 1 meter
- Diameter of round bar = 16 mm
- Width of rectangle bar = 40 mm
- Height of rectangle bar = 20 mm

OR

- Q. 4 (a)** 1. Define the term “ Leveling and alignment ”. **07**
 2. Explain in brief method of erection, leveling and alignment.
- (b)** Draw & state the steps followed in geometrical construction under following condition without using protector (By using scales & compass / rotor only). **07**
1. Draw a perpendicular straight line at a center point p from a given line segment AB = 60 mm.
 2. Prepare a rectangle having length L = 60 mm
Width W = 40 mm

Q.5

- (a)** Explain in brief **07**
1. Precaution at erection site
 2. Method of erection for industrial shade structure
- (b)** 1. Classify the cutting process in chart form **07**
 2. Explain in brief Oxy-acetylene gas cutting process.

OR

- Q.5 (a)** 1. Compare plasma arc cutting and oxy-acetylene gas cutting **07**
 2. Explain in brief cutting by mechanical shearing methods
- (b)** Explain in brief following terms **07**
 Straightening, Bending, lay outing and rolling operation
