

GUJARAT TECHNOLOGICAL UNIVERSITY
Diploma Engineering Semester –I/II Examination Jan. 2012

Subject code: 320015**Date: 24/01/2012****Subject Name: Mechanical Structure & Pipe Drafting****Time: 10.30 am – 01.30 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 is considered Authentic.

- Q.1** (a) Explain general structural fabrication drawing and different information provided in it with neat sketch. **07**
- (b) Explain different dimensioning methods with neat sketch. **07**
- Q.2** (a) Explain advantages of AutoCAD over conventional drawing. **07**
- (b) Draw following symbols **07**
1. General pipeline 2. Air pipeline 3. Gas pipeline
4. Oil pipe line 5. Cold water pipeline 6. Hot water pipeline
7. Flanged joint 8. Screwed elbow 90° 9. Flanged reducer
10. Screwed T 11. Screwed Gate valve 12. Flanged globe valve
13. Flanged stop coke 14. Flanged safety valve
- OR**
- (b) Draw following symbols **05**
- [1] Square butt weld [2] Single V butt weld [3] Single bevel butt weld
[4] Single J butt weld [5] Baking run [6] Fillet weld [7] plug weld
[8] Spot weld [9] Seam weld [10] Concave fillet weld
[11] Welding symbol showing position of symbol on drawing & all welding information. **02**
- Q.3** Draw [1] Front View [2] R.H.S. [3] L.H.S [4] Top Plan of Object shown in FIG-1. Use 1 st angle projection system. **14**
- OR**
- Q.3** In FIG-2 Detail drawing of cotter joint is shown. Make assembly drawing of it and Draw following views. ASSUME SUITABLE DIMENSIONS. **14**
- [1] Half sectional elevation
[2] Top Plan
[3] L.H.S.
- Q.4** In FIG-3 Front View of three solids placed one above the other keeping their axes along one common line is shown. Draw the Isometric view of the same. **14**
- OR**
- Q. 4** A cone, diameter of base 50 mm and height 60 mm, is resting on H.P. on its base. A cylinder of 30 mm diameter is penetrating the cone from the top side. The axis of cylinder is parallel to the axis of the **14**

