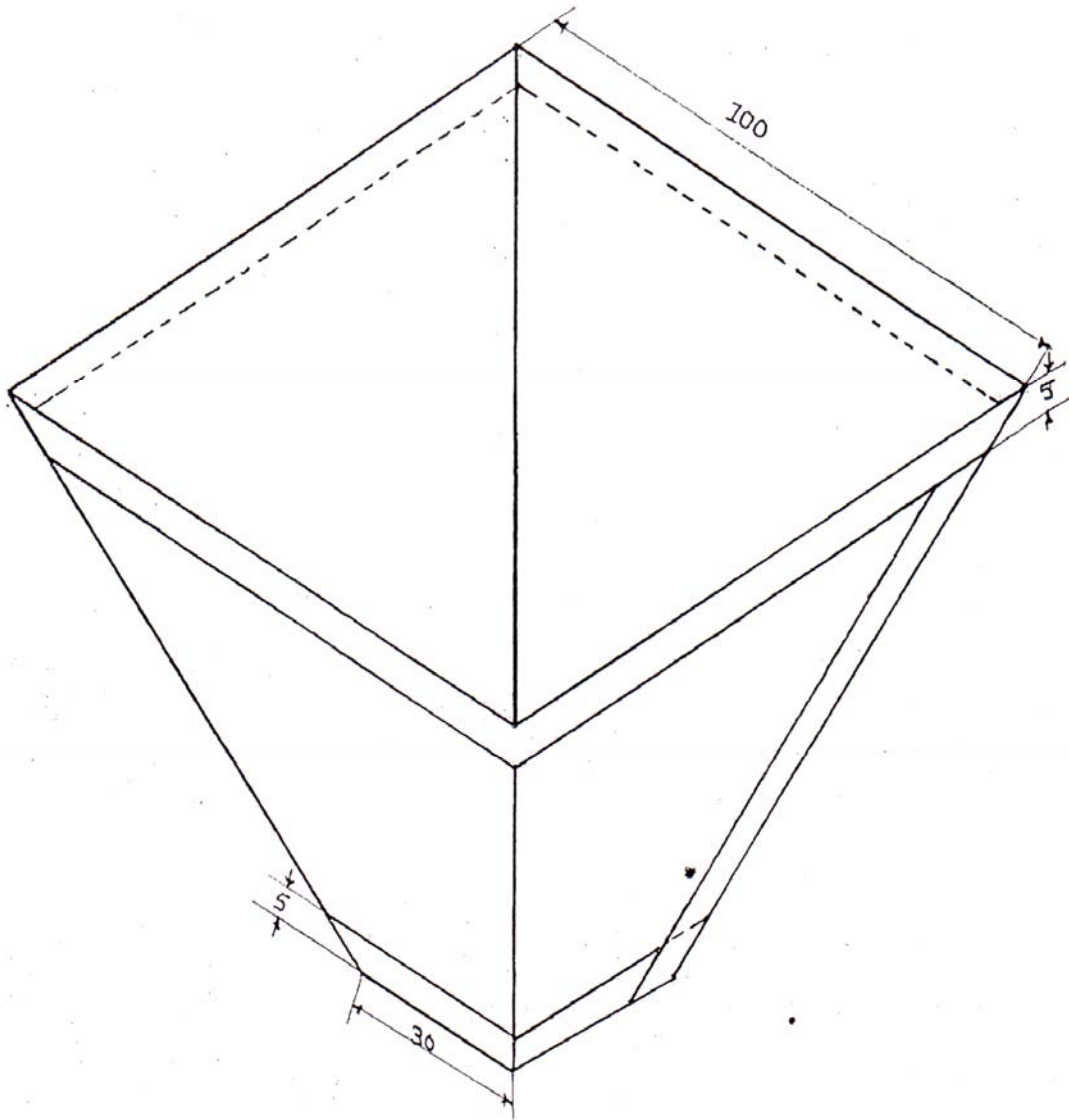


GUJARAT TECHNOLOGICAL UNIVERSITY**Diploma Engineering - SEMESTER-IV • EXAMINATION – SUMMER 2013****Subject Code: 345502****Date: 05-06-2013****Subject Name: Sheet Metal Fabrication****Time: 10:30 am - 01:00 pm****Total Marks: 70****Instructions:**

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

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|-------------|-----|---|-----------|
| Q.1 | (a) | Make sheet metal pattern development of Hopper shown in fig. - 1 | 07 |
| | (b) | Explain spring back effect in sheet metal work and method to reduce it. | 07 |
| Q.2 | (a) | Explain mechanism of shearing action in press tool. | 07 |
| | (b) | Explain characteristics of sheet metal with regard to various forming operation. | 07 |
| OR | | | |
| | (b) | Explain different of sheet metal joints and give its application. | 07 |
| Q.3 | (a) | Explain soldering process with neat sketch, write advantages, limitation & application of it. | 07 |
| | (b) | Define “gas welding process” Explain its principle of operation with neat sketch. | 07 |
| OR | | | |
| Q.3 | (a) | Explain different safety precautions to be taken in gas welding shop. | 07 |
| | (b) | Explain types and application of different gas welding flames | 07 |
| Q.4 | (a) | Explain gas welding techniques with neat sketch. | 07 |
| | (b) | Explain function of regulator and back fire arrestors in gas welding. | 07 |
| OR | | | |
| Q. 4 | (a) | Define “resistance welding process”. Explain different variables of resistance welding process. | 07 |
| | (b) | Describe spot welding equipment with neat sketch giving functions of each part. | 07 |
| Q.5 | (a) | Explain quality control in resistance welding. | 07 |
| | (b) | Explain advantages & limitation of welded joint over riveted joints. | 07 |
| OR | | | |
| Q.5 | (a) | Draw neat sketch of different riveted joints,
1. Single strip butt joint (Single riveted & double riveted.)
2. Double strip butt joint (Single riveted & double riveted.)
3. Lap joint | 07 |
| | (b) | List different sheet metal work application and explain any one with neat sketch. | 07 |



QUE 1 – A FIG. – 1

NOTE :- (1) All dimensions are in mm
(2) Height of hopper is 50 mm
