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King Mongkut's University of Technology Thonburi

Problem	Points
1.	
2.	
3.	
4.	
5.	
6.	
Total	

Mid Semester Exam
Academic Year 2018

CVE 111: Engineering Drawing

Date: 8 October 2018 Time: 9:00 – 12:00

Student Name	Student ID number	Seat No.

Instructions :

1. **Students are not allowed to take examination scripts, answer booklets or any materials out of the examination room. Violation of the rules shell result in a penalty of student receiving a zero in that examination.**
2. **Students who are caught cheating in the examination shell be penalized by receiving fail grade (F) in that subject and is forced to withdraw (W) from all remaining subjects in that semester. The maximum penalty may include expulsion.**
3. Write your name and student ID number on every page.
4. There are 6 questions with marks written in the problem definition. Total number of marks for this exam is 30. You are strongly advised to attempt all questions.
5. This examination paper consists of 11 pages (including this one).
6. Read each question carefully, disobedience of instruction will result in 0 mark
7. All answer should be answered in these papers sheets.
8. No textbooks, dictionaries (electronic or book) and written materials are allowed in the examination room.
9. Scientific calculator is allowed. Use of smartphone device as a calculator is forbidden.

Examiner: Dr. Goran Arangjelovski
Tel. 02-470-9146

This examination paper has been approved by the Department of Civil Engineering

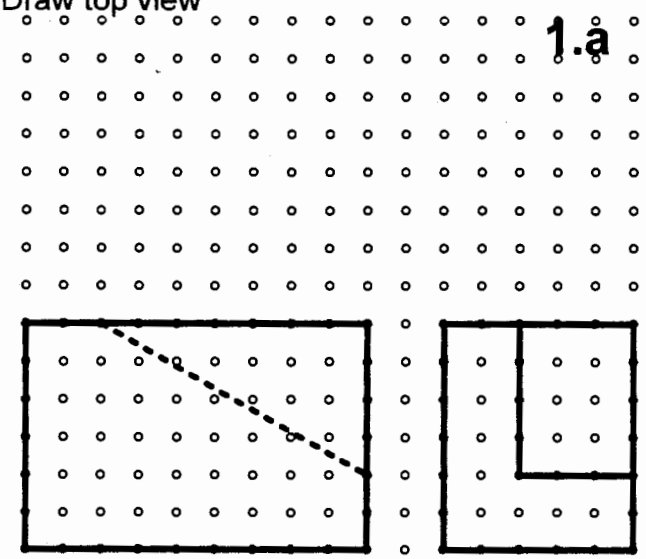
Assoc. Prof. Sutat Leelataviwat
Head of the Civil Engineering Department

Student Name:_____ Student ID Number:_____

1. For the following figures (1.a trough 1e.), draw the missing projection and the isometric projection. Use the grid provided (5 points).

Draw top view

1.a

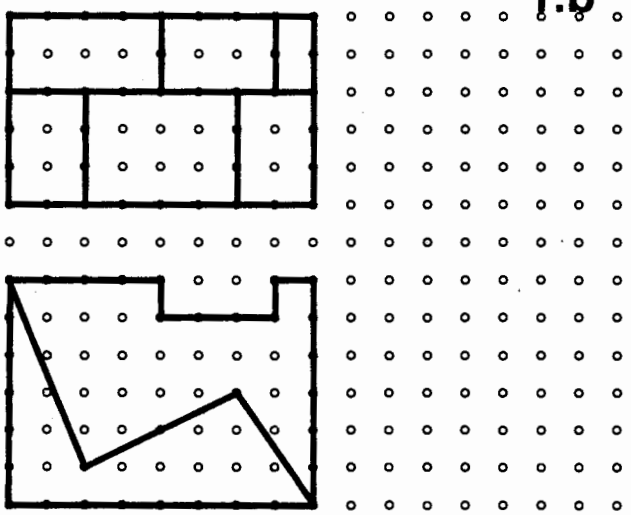


Draw isometric projection

1.a

Draw right side view

1.b



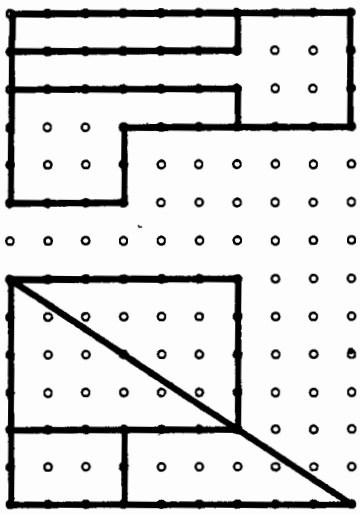
Draw isometric projection

1.b

Student Name:_____ Student ID Number:_____

Draw right side view

1.c

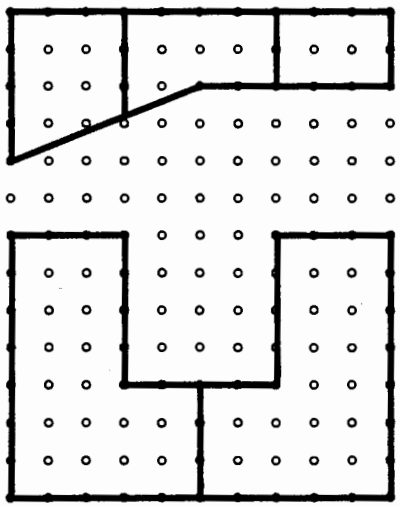


Draw isometric projection

1.c

Draw right side view

1.d

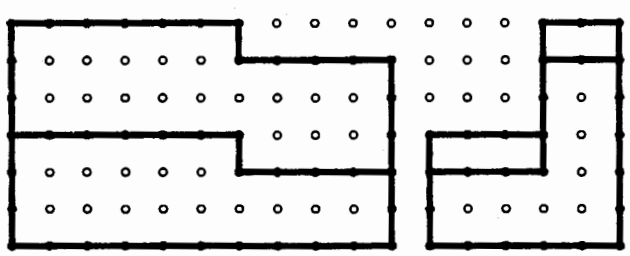


Draw isometric projection

1.d

Draw top view

1.e

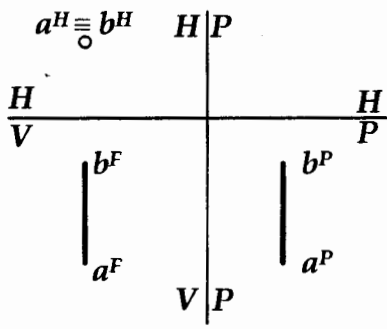


Draw isometric projection

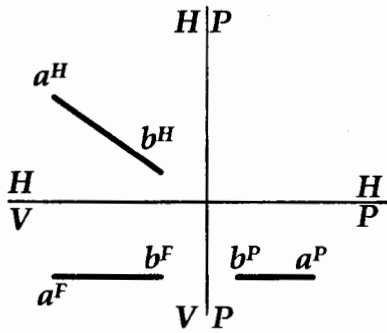
1.e

Student Name:_____ Student ID Number:_____

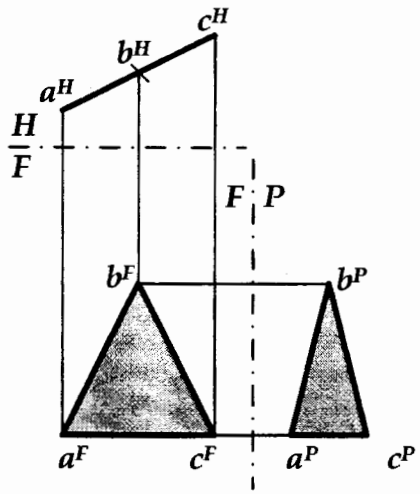
2. An object (line or triangle) is given with its orthogonal projections. For each case, explain the position of the line. Identify in which projection is the true distance or shape. (3 points)



Answer:



Answer:



Answer:

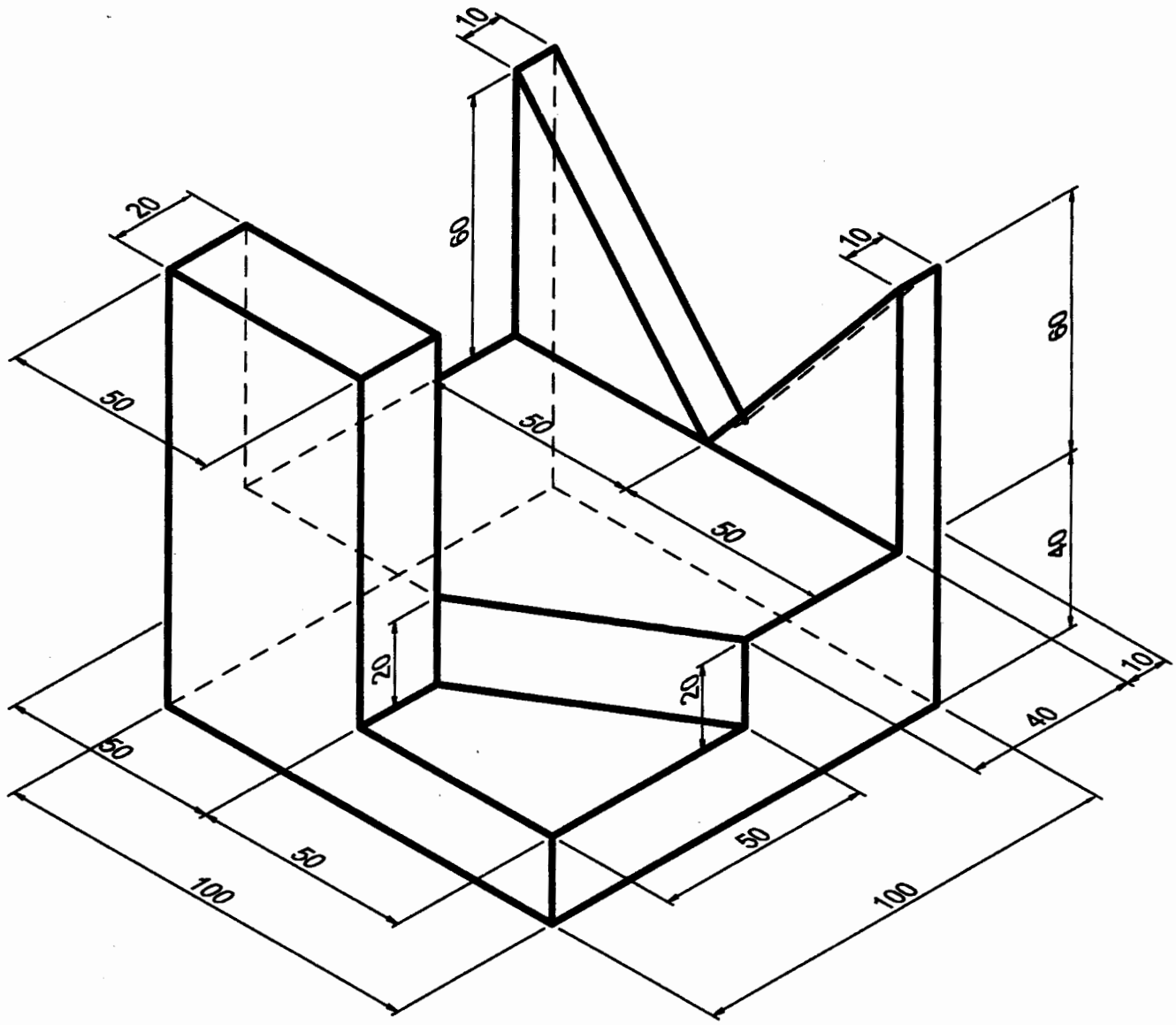
3. Write the following text with technical lettering. Height of the line (letters) are 6mm with spacing of 6mm between the lines. The text should be written in **normal** and ***italic*** lettering. Italic letters are inclined 75 degrees from the positive horizontal axis (toward right). Use both, uppercase and lowercase letters. (5 points).

The text to be written is given below:

Piles and drilled shafts are structural members used to transfer loads to deep strata through skin friction and end bearing.

Student Name:_____ Student ID Number:_____

4. For the given figure, draw the orthogonal projections in third angle projection; front, top and right side view (draw them on the next page). The scale ratio is 1:20. All units are in centimeters. Dimensions are required. (6 points).



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On this page, draw the problem No.4

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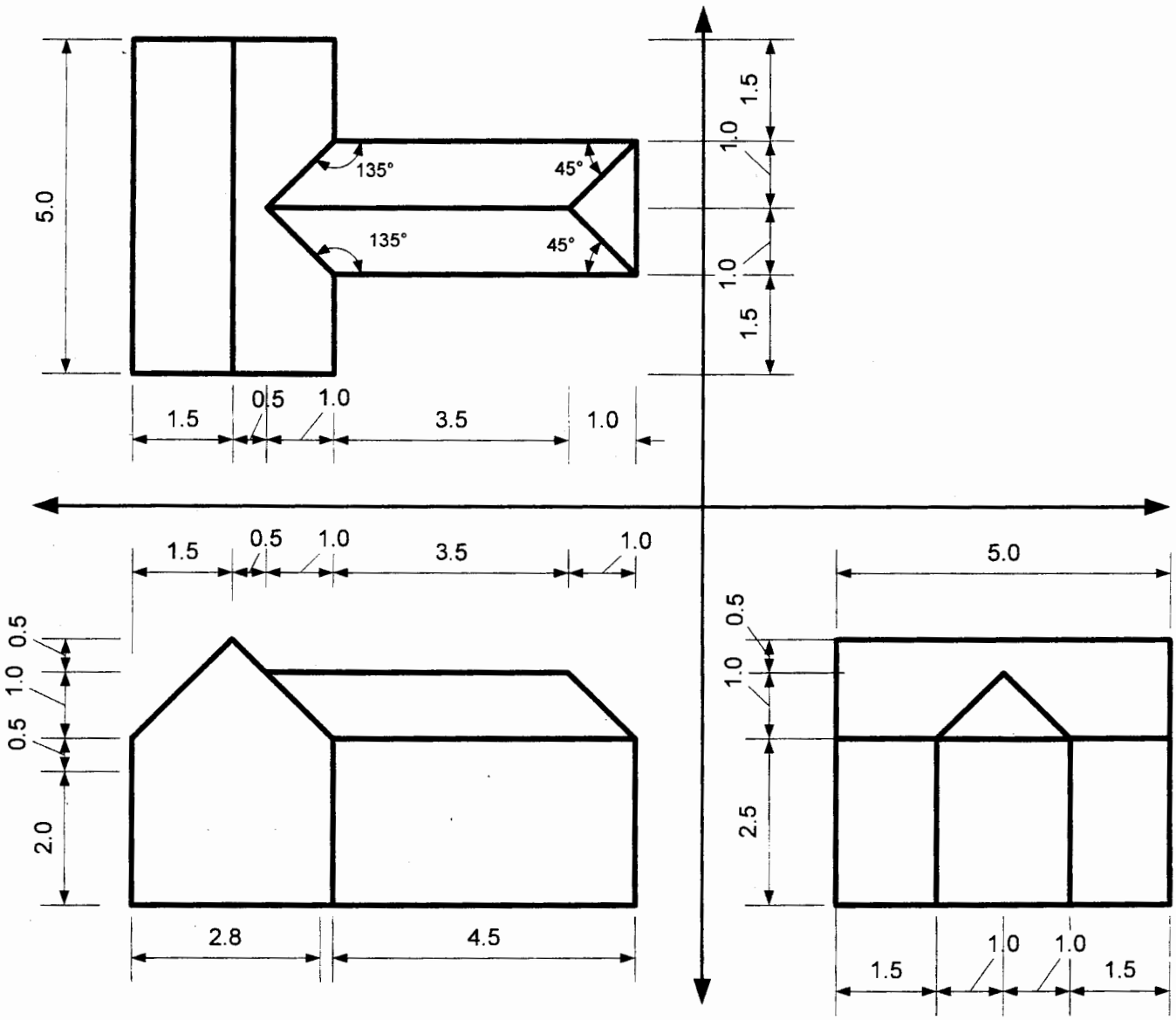
5. Draw the following figure in isometric view (draw on the next page). The projections are given in third angle projection. The scale ratio is 1:100. All units are in meters. (6 points).



Student Name:_____ Student ID Number:_____

On this page, draw the problem No.5

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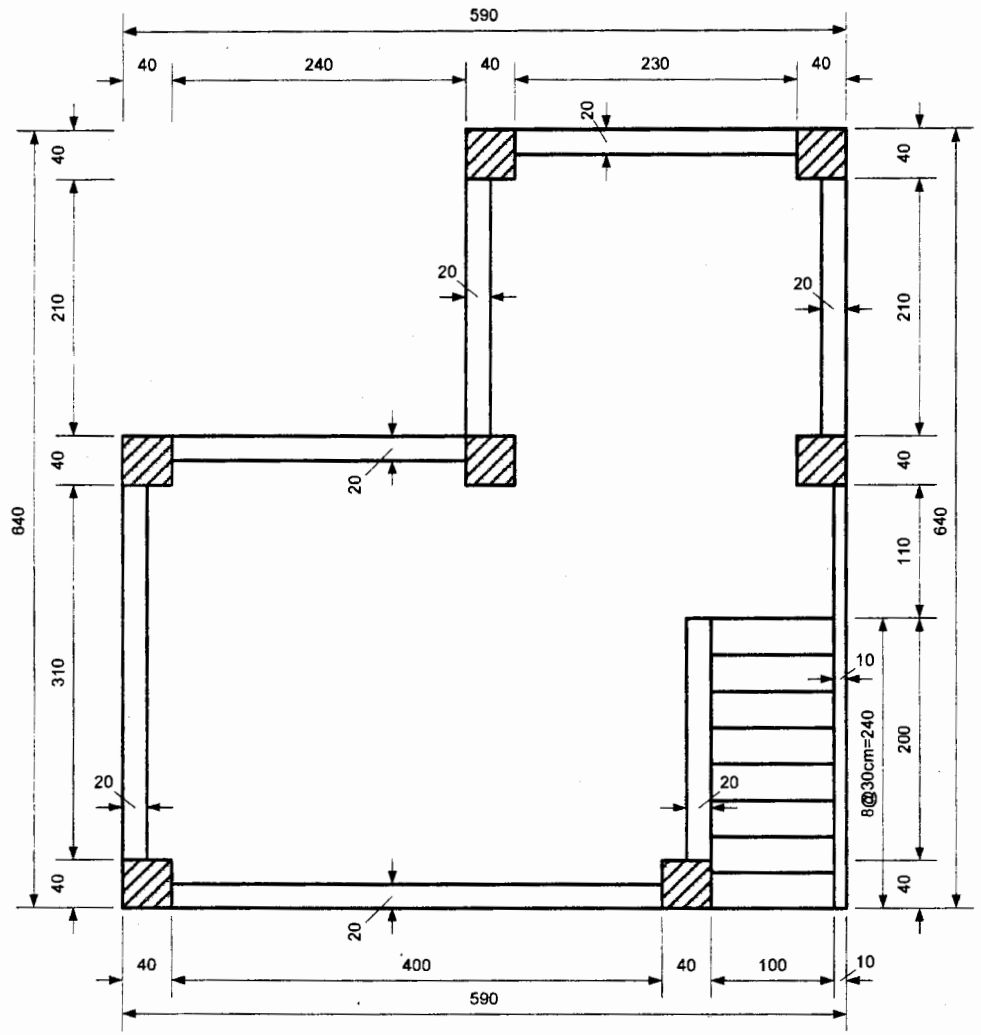
6. Draw the floor plan in given scale ratio (draw on the next page). The scale ratio is 1:50. All units are in centimeters. All outlines and dashed lines are same width (thickness). Dimensions are required. (5 points).



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On this page, draw the problem No.6