



MUZAFFARPUR INSTITUTE OF TECHNOLOGY, MUZAFFARPUR

Mid-Term Examination, 2018

Session 2018- 19 (Odd Semester)

Subject: Engineering Graphics & Design

Paper code: ESC105

Course & Semester: B.Tech (1st)

Branch: ME+LT+CE+IT

Time: 2 hours

Full Marks: 20

Instructions: (i) Attempt all parts.

1. In the engineering system of paper sizes, which of the following is 'A2' size?
 - a) 841 mm x 1189 mm
 - b) 594 mm x 841 mm
 - c) 420 mm x 594 mm
 - d) 210 mm x 297 mm

(2 Marks)

2. Which of the following pencil leads is hardest?
 - a) HB
 - b) H
 - c) B
 - d) F

(2 Marks)

3. Construct a Vernier scale of 1:40 to read meters, decimeters and centimeters and long enough to measure up to 6 m. Mark a distance of 5.76 m on it.

OR

Construct a diagonal scale showing yards, feet and inches in which 2 long line represents 1.25 yards and is long enough to measure up to 5 yards. Find RF and mark a distance of 4 yards 2 feet 8 inches.

(5 Marks)

4. Draw an involute of a circle of diameter 50 mm. Also draw normal and tangent at a point 100 mm from the center of the circle.

(5 Marks)

5. A 70 mm long line PQ has its end P 20 mm above the H.P. and 30 mm in front of the V.P. The line is inclined at 45° to the H.P. and 30° to the V.P. Draw its projections.

(6 Marks)



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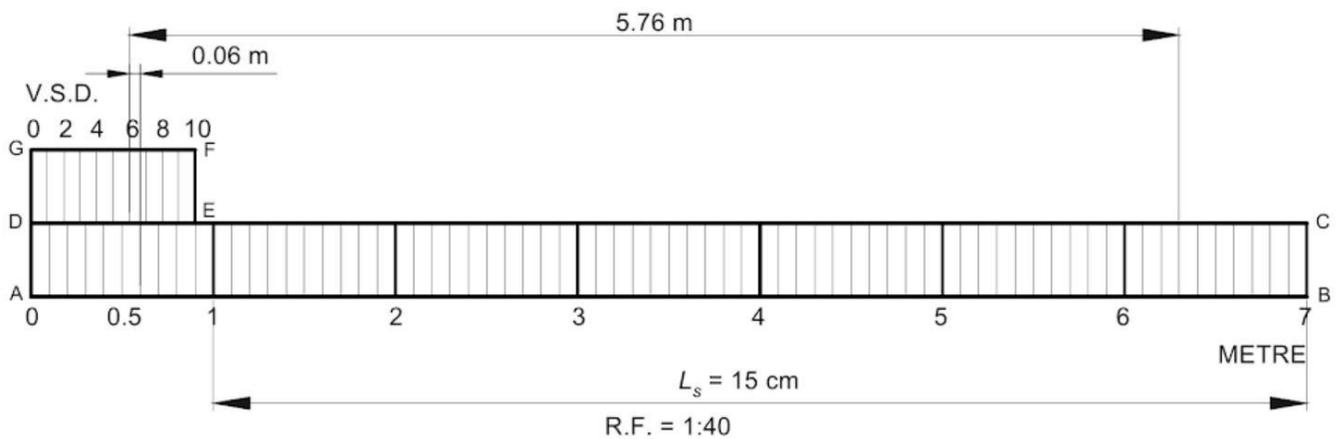
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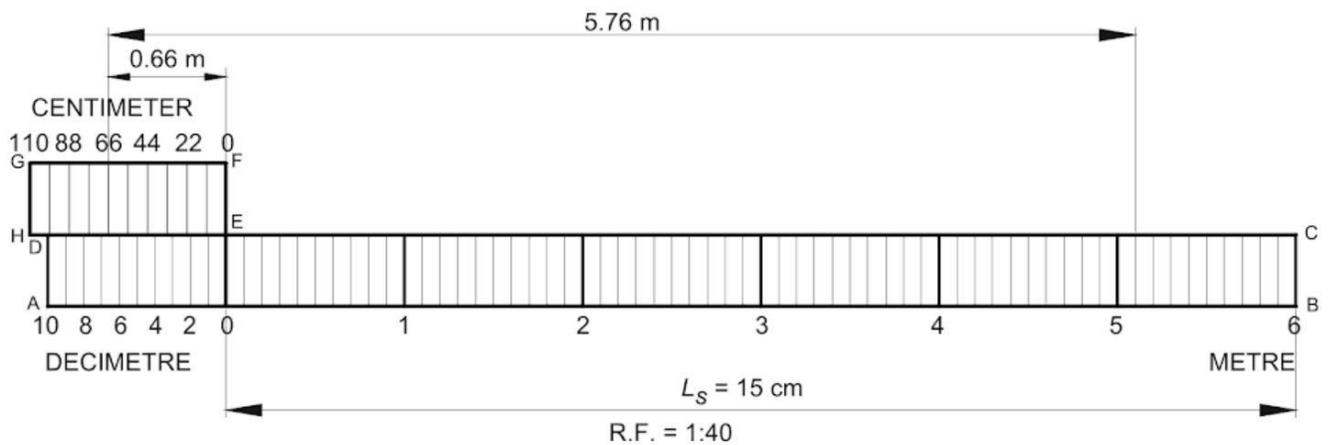
Branch: ME+CE+EE

Solution

- 1. c) 420 mm x 594 mm
- 2. b) H
- 3. Vernier scale:

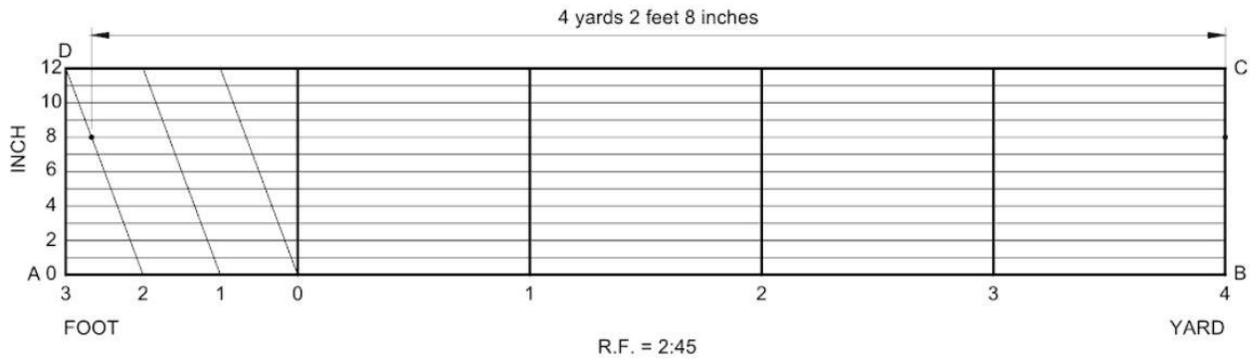


Forward approach

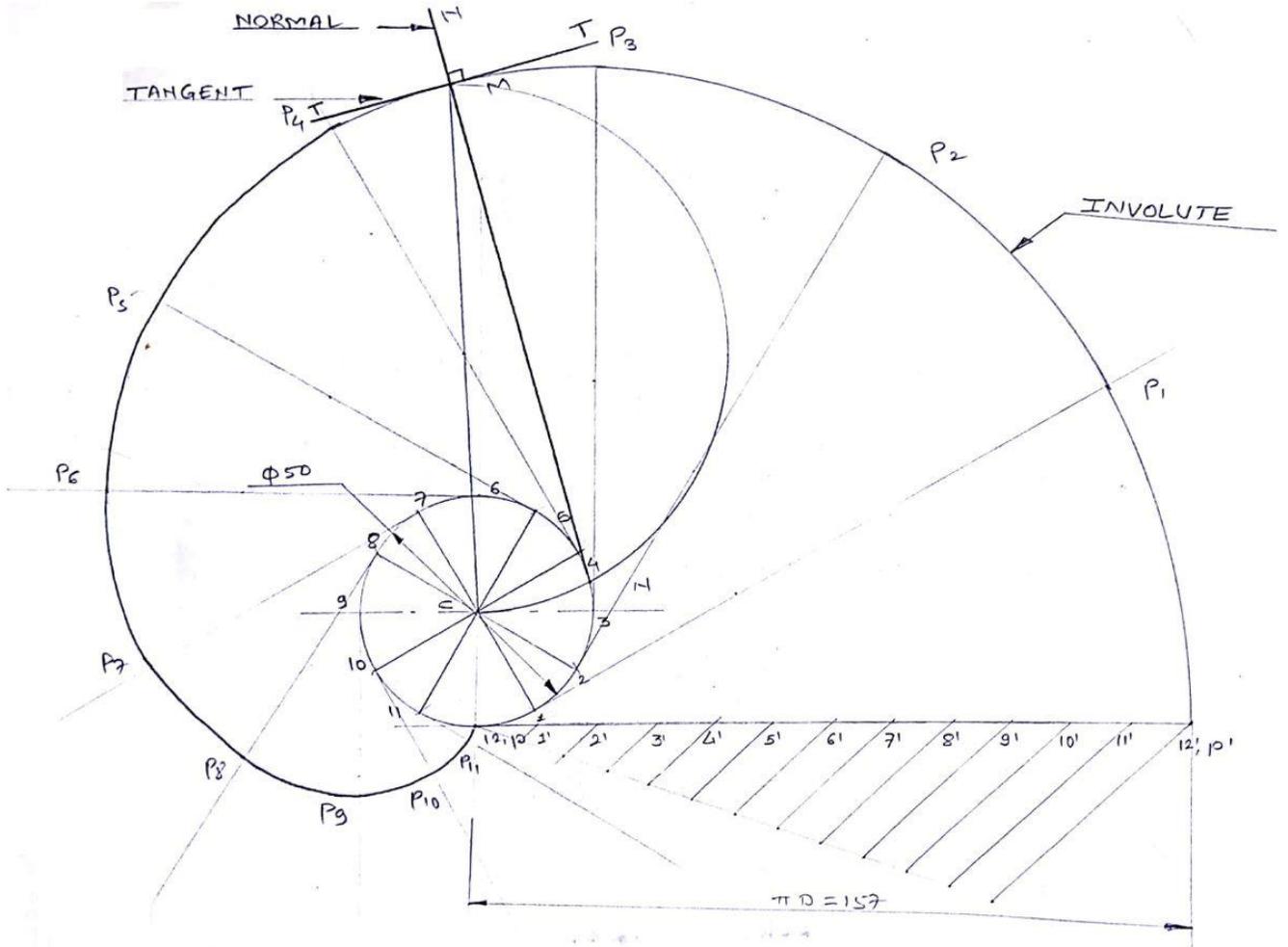


Backward approach

Diagonal scale:



4. Involute curve:



5.

