

MEC103 :: ENGINEERING GRAPHICS**Time Allowed: 01:30 hrs****Max.Marks: 50**

1. This paper contains 4 questions divided in two parts.
2. All questions are compulsory.
3. The marks assigned to each question are shown at the end of each question in square brackets.
4. Attempt either (a) OR (b) from each question of Part B.
5. Answer all questions in serial order.
6. Do not write anything on the question paper except your registration number at the designated space.

PART A

- Q1 (a) What are the main uses of Scale? [2.5 Marks]
 (b) What are Guidelines and why they are necessary in lettering? [2.5 Marks]

PART B

Q2 (a) Draw a vernier scale of RF equal to $1/20$ and capable of reading meters, decimeters and centimeters. Show on it the following lengths:

- (i) 2 meter, 5 decimeter and 6 centimeter. (ii) 1.44 meter. (iii) 16.8 decimeter. [15 Marks]

OR

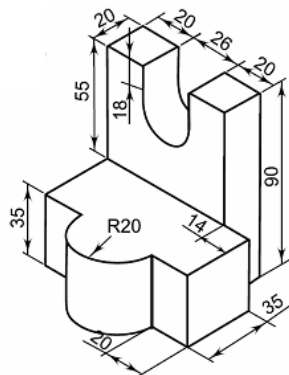
(b) A distance of 1,000 km is to be represented by a length of 200 mm. Draw a diagonal scale that can read up to a single kilometer and that is long enough to measure 700 km. Mark off 657 km and 343 km. [15 Marks]

Q3 (a) A Point P is 25 mm in front of the V.P. and 40 mm above the H.P. Another point Q is 40 mm in front of the V.P. and 25 mm above the H.P. The distance measured between the projectors is 40 mm. Draw the projections and find the distance between P and Q. [15 Marks]

OR

(b) Define a Point. Why the projections of an object are not drawn in second and fourth quadrant? What is the difference between Auxiliary vertical plane(A.V.P.) and Auxiliary inclined Plane (A.I.P.)? When are the Auxiliary planes used? [15 Marks]

Q4 (a) Figure below shows pictorial view of an object. Using first angle projection method, draw front, side and top views of the given object. [15 Marks]

**OR**

(b) Using third angle projection method draw front view, top view and side view of the object shown below. [15 Marks]

