

Roll No



**PRESIDENCY UNIVERSITY
BENGALURU**

SET - A

**SCHOOL OF ENGINEERING
END TERM EXAMINATION - FEB 2023**

Semester : Semester I - 2022

Course Code : MEC1006

Course Name : Sem I - MEC1006 - Engineering Graphics

Program : B.Tech - (All Programs)

Date : 24-FEB-2023

Time : 9.30AM - 12.30PM

Max Marks : 100

Weightage : 50%

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and non-programmable calculator are permitted.
- (iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS

(20M)

1. A point P is 20mm above the HP and 30mm in front of the VP. Another point Q is 30mm behind the VP and 40mm below the HP, draw the projections of P and Q keeping the distance between their projectors equal to 90mm. Draw and measure straight lines joining
i) Their top views and
ii) Their front views
[8M]
(CO1) [Knowledge]
2. Front view of line AB is 60 degrees inclined to XY and measures 60 mm long while its TV is 60 degrees inclined to XY line. If end A is 10 mm above HP and 10 mm in front of VP Draw projections of the line considering the line is in first quadrant. Also show front view length, top view length, true length and all the inclinations with HP and VP in the projection.
[12M]
(CO2) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS

(45M)

3. A square lamina ABCD of 40mm side rests on corner C such that the diagonal AC appears to be inclined at 30 degrees to VP. The two sides BC and CD containing the corner C make equal inclination with HP. The surface of the lamina makes 40 degrees with HP. Draw its top and front views. [25M]
(CO3) [Comprehension]

4. A square prism base side 40mm, height 40mm is placed centrally on a rectangular slab sides 80mm×60mm and thickness 30mm, draw the isometric projection of the combination of solids. [20M]
(CO5) [Comprehension]

PART C

ANSWER THE FOLLOWING QUESTION

(1 X 35 = 35M)

5. A hexagonal pyramid 25 mm sides of base and 50 mm axis length rests on HP on one of its corner of the base such that two base edge containing the corner on which it rests makes equal inclinations with HP. Draw the projections of pyramid when the axis of the pyramid is inclined to HP at 45 degrees and appears to be inclined to VP at 45 degrees.

(CO4) [Application]