Roll No											

PRESIDENCY UNIVERSITY
BENGALURU

SET A

SCHOOL OF ENGINEERING
END TERM EXAMINATION – MAY / JUNE 2024

Semester : Semester II - 2023
Course Code : MEC1006
Course Name : Engineering Graphics
Program : B.Tech.

Date : June 18, 2024
Time : 01.00pm to 04.00pm
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 ANY ONE QUESTIONS **1QX20M=20M**

1. a) A Point 25 mm above XY line is the front view of two points A & B. The top view of A is 40 mm behind VP & The top view of B is 45 mm in front of VP. Draw The projections of the points & state the quadrants in which the points are situated. [8M]
b) A Line AB 75 mm long has its end A 20 mm above the HP and 25 mm infront of VP, it is inclined at 30°to HP and 45° to VP. Draw the Projections of the line and find apparent lengths and apparent inclinations. [12M]

(CO2,CO1) [Application]

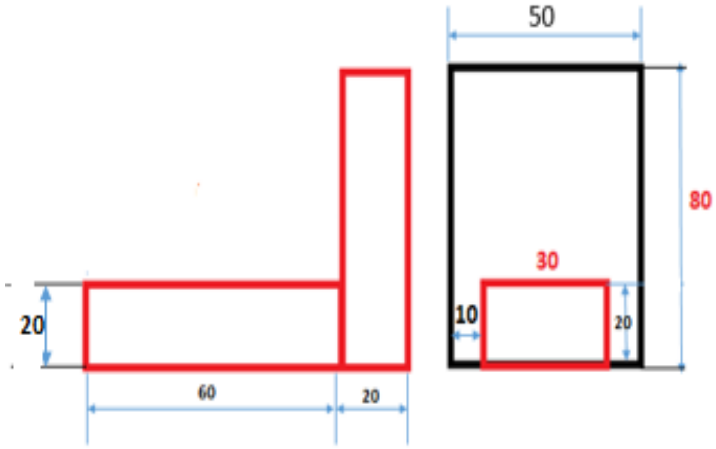
2. a) A Point P is 15 mm above HP & 25 mm in front of VP. Another point Q is 25 mm behind VP and 35 mm below HP. Draw their projections when the distance between their projectors parallel to XY line is ZERO mm. add the right side view only to point Q.[8M]
b) The top view AB of a straight line AB is 60 mm long and makes an angle of 30°with the XY Line. The end A is in VP and 30 mm above HP. The end B is 60mm above HP. Draw the projections of the line AB and determine i) Length of the front view ii) True Length and True Inclinations with the reference planes. [12M]

(CO2,CO1) [Application]

PART B

ANSWER ANY ONE QUESTIONS **1QX45M=45M**

3. a) A pentagonal lamina of edges 30 mm is resting on HP with one of its sides, such that the surface makes an angle of 55° with HP. The edge on which it rests is inclined at 40° to VP. Draw its projections. [25M].
b) Following fig shows the front and side views of the solid. Draw isometric projections of the solid.[20M]



(CO4,CO2) [Application]

4. a) A hexagonal lamina of sides 30 mm rests on its sides on HP. The lamina makes 40° to HP and the side on which it rests makes 30° to VP. Draw the projections of the lamina.[25M]

b) A hemisphere of 50 mm diameter is supported co-axially on the vertex of a cone of base dia 80 mm and axis length 65 mm. The flat circular face of the hemisphere is facing upside. Draw the isometric projection of the combination of solids.[20M]

(CO4,CO2) [Application]

PART C

ANSWER ANY ONE QUESTIONS **1QX35M=35M**

5. A pentagonal pyramid 25mm sides of base and 50mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis is inclined to HP at 30° and appears to be inclined to VP at 45°.

(CO3) [Application]

6. A pentagonal prism 25mm sides of base and 60mm axis length rests on HP on one of its edges of the base which is inclined to VP at 30°. . Draw the projections of the prism when the axis is inclined to HP at 35°.

(CO3) [Application]