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**PRESIDENCY UNIVERSITY
BENGALURU**

SET B

**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

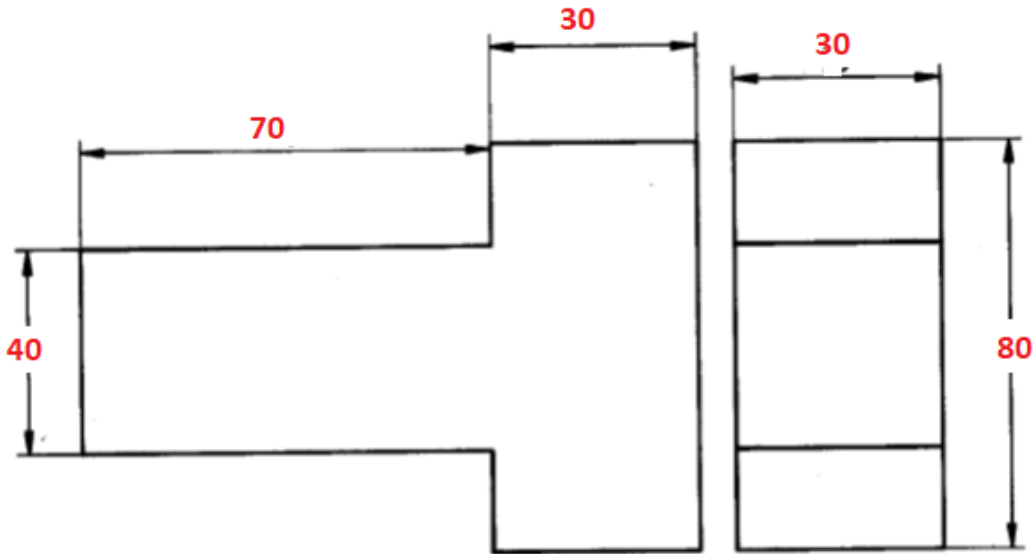
1. a) Draw the projections of the following points XY line, keeping convenient distance between each projector. Name the quadrants in which they lie.
A - 25 mm above HP and 30mm in front of VP
B - 30mm above HP and 30mm behind VP
C - 30mm above HP and on VP;
D - 30mm below HP and 30mm in front of VP [8M]
b) A Line has its end A 10 mm above HP and 15 mm in front of VP. The end B is 50 mm above HP and line is inclined at 30° to HP. The distance between the end projectors is 45 mm. Draw the projections of the line. Determine the true length of the line and its inclinations with VP.
[12M]
(CO1,CO2) [Application]
2. a) A point S is in the first quadrant and equidistant of 45 mm from all the three principal planes. Draw the projections of the point. Draw all the three views of the point. [8M]
b) FV of line AB is 50° inclined to XY and measures 55 mm long while its TV is 55° inclined to XY line. If end A is 10 mm above HP and 15 mm in front of VP, draw its projections, find TL, inclinations of line with HP & VP.[12M]
(CO2,CO1) [Application]

PART B

ANSWER ANY ONE QUESTIONS

1QX45M=45M

3. a) An Hexagonal equilateral triangular lamina of 30mm side lies with one of its edges on HP such that the surface of the lamina is inclined to HP at 45° . The edge on which it rests is inclined to VP at 60° . Draw the projections.[25M]
b) Following the below fig, show the Front View and Side View of the solid, Draw isometric projection of the Solid.



(CO4,CO2) [Application]

4. a) A square lamina of 40mm side rests on one of its sides on HP. The lamina makes 35° to HP and the side on which it rests makes 40° to VP. Draw its projections.[25M]
b) A Square Pyramid base side -40mm, height 60 mm is placed centrally on a rectangular slab sides (100 x 80 mm and thickness is 20 mm. Draw the isometric projection of the combination. [20M]

(CO4,CO2) [Application]

PART C

ANSWER ANY ONE QUESTIONS

1QX35M=35M

5. a) A pentagonal prism base 25 mm and height 60 mm is resting on one of its corners of its base on the HP and its axis inclined at 45° to the HP. Draw the projections of the solid when the top view of the axis is inclined at 30° to VP
(CO3) [Application]
6. A hexagonal pyramid 25 mm sides of base and 55 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 40° and appears to be inclined to VP at 45° .
(CO3) [Application]