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PRESIDENCY UNIVERSITY BENGALURU

SCHOOL OF ENGINEERING

Summer Term

END TERM EXAMINATION – AUGUST 2024

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| **Semester : 2023-24** | **Date : 19-08-2024** |
| **Course Code : MEC 152/MEC2008** | **Time : 1.00M PM to 4.00 PM** |
| **Course Name : Engineering Graphics** | **Max Marks : 100** |
| **Program : B.Tech.** | **Weightage : 50%** |

**Instructions:**

1. *Read all questions carefully and answer accordingly.*
2. *Question paper consists of 3 parts.*
3. *Answer one full question from each part.*
4. *Do not write any information on the question paper other than Roll Number.*

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| **PART A** | | | |
| 1 a | Draw the Projections of the following Points on the same XY line, keeping convenient distance between each projector. Name the Quadrants in which they lie. A – 30mm above HP & 35 mm in front of VP B - 35 mm above HP & 40mm behind VP C- 40 mm above HP & on VP D - 35 mm below HP & 30 mm in front of VP. | (CO 2)  08 Marks | [Comprehension] |
| 1b | FV of line AB is 50° inclined to XY and measures 55 mm long while its TV is 60° 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. | (CO 2)  12 Marks | [Comprehension] |
| **OR** | | | |
| 2 a | A point is 30 mm in front of VP 20 mm above HP & 25 mm from Left Profile Plane (LPP). Draw its projections and name the side view. | (CO 2)  08 Marks | [Comprehension] |
| 2 b | A Line AB 80 mm long has its end A 20 mm above the HP and 30 mm in front 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 | (CO 2)  12 Marks | [Comprehension] |
| **PART B** | | | |
| 3 a | A square lamina ABCD of 40mm side rests on corner C such that the diagonal AC appears to be inclined at 45° to VP. The two sides BC and CD containing the corner C make equal inclination with HP. The surface of the lamina makes 30° with HP. Draw its top and front views.. | (CO 2)  25 Marks | [Comprehension] |
| 3 b | A rectangular pyramid of base 40mm x 25mm and height 50mm is placed centrally on a rectangular slab sides 100mm x 60mm and thickness 40mm. Draw the isometric projection of the combination. | (CO 4)  20 Marks | [Comprehension] |
| **OR** | | | |
| 4 a | A hexagonal lamina of sides 30 mm rests on its sides on HP. The lamina makes 45° to HP and the side on which it rests makes 30° to VP. Draw the projections of the lamina. | (CO 2)  25 Marks | [Comprehension] |
| 4 b | A sphere of diameter 50 mm rests centrally on top of a cube of sides 50mm. Draw the isometric projections of the combination of the solids. | (CO 4)  20 Marks | [Comprehension] |
| **PART C** | | | |
| 5 | A regular square pyramid having 35mm base side and 65mm axis length rests on HP on one of its edges of the base which is inclined to VP at 30° and the axis is inclined to HP at 45°. Draw the projections. | (CO 3)  35 Marks | [Comprehension] |
| **OR** | | | |
| 6 | A pentagonal prism base 30mm 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. | (CO 3)  35 Marks | [Comprehension] |