U.S.N.

BMS College of Engineering, Bangalore-560019

(Autonomous Institute, Affiliated to VTU, Belgaum)
October / November 2021 Supplementary Examinations

Programme: B.E.   Semester: I / II
Branch: ALL   Duration: 3 hrs.
Course Code: 14ME1ICEED / 14ME2ICEED   Max Marks: 100
Course: Elements of Engineering Drawing   Date: 29.10.2021

Instructions: **Answer FIVE FULL questions, choosing one from each unit.**

UNIT -1

1. a) The front and top views of a point lie on the xy line and 30mm below xy line respectively. The point is 20 mm from the left profile plane. Draw all the three views and state the quadrant in which it lies. **05**

    b) A line AB 80 mm long has its end A both in HP and VP, and inclined at 30^0 to HP and 45^0 to VP. Draw the projections of the line AB. Find the apparent inclinations of the top and front views with the XY line. Also measure the distance between the end projectors. **15**

OR

2. a) A point lies on HP and its top view is 30 mm above XY line. The point is 20 mm from the Left profile plane. Draw the three views of the point and state the quadrant in which it lies. **05**

    b) A room is 6 m x 5 m x 3.5 m high. An object is placed 1.2 m above the ground and in the center of the room. Determine graphically its distance from any one of the corners between the roof and the adjacent walls. Select a Scale 1: 50. **15**

UNIT-2

3. A rhombus of diagonals 30 mm and 60 mm appears to be square in top view with its shortest diagonal parallel to both HP and VP. Determine the inclination of lamina with HP and VP. **20**

UNIT-3

4. A hexagonal pyramid is lying on HP on one of its slant faces. The slant face on HP has the dimensions 20 mm base and 60 mm altitude. Draw the projections of the solid **20**

when center line of slant face on HP is inclined to VP at 30º.

OR

5. A pentagonal pyramid of 20mm side of base and axis 60mm long has one of its triangular faces on VP. Draw the projections of the solid when the front view of axis is inclined at 30° to HP with the base of solid nearer to HP.   **20**

UNIT-4

6. A vertical pentagonal prism of 30 mm side of base and axis 65 mm long has one of its rectangular faces parallel to VP and nearer to it. A circular hole of 30 mm diameter is drilled through the prism completely such that the axis of the hole bisects the axis of the prism at right angles and is perpendicular to VP. Draw the development of the prism showing the shape of the hole on it.   **20**

UNIT-5

7. A regular pentagonal prism of its base edges 35 mm and axis 60 mm long is mounted centrally over a cylindrical block of 70 mm diameter and 15 mm thick. Draw the isometric projection of the combined solid.   **20**

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