ASSIGNMENT # 1

Note: - Draw a border line (box) with A0 size i.e.1189×841 and title block and pdf should be taken in monochrome style. For line projection follow first angle projection standard.

1. Construct a plain scale and diagonal scale of 3:200 showing meters, decimeters and centimeters and measure up to 6 meters and measure the 5.2 meter and 5.36 meter in that scale.
2. Draw a regular octagon of 40 mm side.
3. Draw a circle of 30 mm diameter and 80 mm diameter by keeping their centers 150 apart and draw external and internal tangents.
4. Draw projection of point D 25 mm below HP and 25 mm behind VP.
5. Draw projection of point C, in the VP and 40 mm adobe the HP.
6. Draw projection of point P is 20 mm below HP and lies in the third quadrant. Its shortest distance from xy is 40 mm.
7. A point P is 15 mm above the HP and 20 mm in front of the VP. Another point Q is 25 mm behind the VP and 40 mm below the HP. Draw projections of P and Q keeping the distance between their projectors equal to 90 mm. Draw straight lines Joining (a) their FV (b) their TV
8. The length of the TV of a line parallel to the VP and inclined at 45° to the HP is 50 mm. One end of the line is 12 mm above the HP and 25 mm in front of the VP. Draw the projections of the line and determine its true length.
9. The front view of the 75 mm long line measures 55 mm. The line is parallel to the HP and one of its ends is in the VP and 25 mm above the HP. Draw the projections of the line and determine its inclination with the VP.
10. Draw projection of line AB 75 mm long and perpendicular to the HP, 20 mm in front of the VP and its one end 15 mm above the HP.
11. Draw projection of line PQ 85 mm long perpendicular to the HP in the VP and its one end in the VP.
12. Draw the projection of line AB of 75 mm long is inclined at 45° to the VP, in the HP and its one end in the HP.
13. Draw the projection of line AB of 75 mm long line inclined at 60° to the VP and its one end 15 mm in front of it; parallel to and 25 mm above the HP.
14. Draw the projection of lines of question from 11 in the third angle projection method.

15. Draw the projection of lines of question from 12 in the third angle projection method.
16. Draw the projection of lines of question from 13 in the third angle projection method.
17. A line AB 65 mm long has its end A 20 mm above the HP and 25 mm in front of the VP. The end B is 40 mm above HP and 65 mm in front of the VP. Draw the projections of AB and show its inclinations with the HP and VP and also measure the apparent angles from HP and VP also.
18. A line AB 90 mm long is inclined at 45° to the HP and its TV makes an angle of 60° with the VP. The end A is in the HP and 12 mm in front of the VP. Draw its FV and find its true inclination with the VP.