

BACHELOR OF ARCHITECTURE
FIRST YEAR FIRST SEMESTER EXAM 2018 (Old)
Descriptive Geometry

Time: 4 Hours

Full Marks: 100

Attempt all questions

1. Construct ellipses by the Oblong method, given the two axes as follows: 15
Major axis - 80 mm., Minor axis - 45 mm.

2. A thin circular plate of dia 50 mm is resting on HP on a point A on its circumference such that the plane of the plate is inclined at 45° to the HP and the top view of the diameter passing through the point A makes an angle of 30° with VP. 15

3. A cylinder 50mm dia, 75mm long, lying on the ground on a point in its base circle with axis making 30° to the HP and the top view of the axis making an angle of 45° with the VP. Draw its projections. 20

4. A right regular pentagonal prism, side of base 25mm and height 55mm, rests on its base with one of its base edges perpendicular to the V.P. and inclined to the H.P. at 60° , cuts the prism meeting its axis at a distance of 8mm from its top end face. Draw the front view, sectional top view and true shape of the section, of the cut prism. Also develop the surfaces of the truncated prism. 25

5. A right circular cylinder, diameter of base 45 mm and height 80mm, resting on its base in HP, is intersected by another cylinder of diameter 35 mm base. The axis of the penetrating cylinder is inclined to HP at 45° , is parallel to V. P. and cuts the axis of the vertical cylinder at midpoint. Draw the projections of the two cylinders showing the curves of intersection. Assume any suitable length of penetrating cylinder. 20

5 marks for neat drafting and cleanliness