BACHELOR OF ARCHITECTURE First Year FIRST SEMESTER EXAM 2019 (Old)
Descriptive Geometry

Time: 4 Hours   **Full Marks: 100**

Attempt all questions

1. Construct ellipse by the Concentric circle Method, given the two axes as follows:
   Major axis - 70 mm. Minor axis – 50 mm.   **15**

2. A line AB, 60 mm long has its end A 20 mm below HP and 25 mm behind VP. The end B is 50 mm below HP and 65 mm behind VP. Draw the projections of AB and the true angles with HP and VP.

Or,

   Draw the projections of a thin circular plate of 60 mm dia resting on the circumference, its plane inclined at 55° to the H.P. and
   (a)   The top view of the dia making 45° angle with the V.P.
   (b)   The dia AB making 45° angle with the V.P.   **15**

3. Draw the projections of a cube of 25 mm long edges resting on the ground on one of its corners with a solid diagonal perpendicular to the V.P.   **20**

4. A right regular square prism, side of base 25 mm and height 60 mm, rests on its base with one of its base edges perpendicular to the V.P. A section plane perpendicular to V.P., inclined to the H.P. at 45°, cuts the prism meeting its axis at a distance of 20 mm 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 vertical square prism, base 50 mm side and height 100 mm has a face inclined at 30° to the V.P. It is completely penetrated by another square prism, base 35 mm side and axis 100 mm long, faces of which are equally inclined to the V.P. The axes of the two prisms are parallel to the V.P. and bisect each other at right angles. Draw their projections showing lines of penetration.   **20**

5 marks for neat drafting and cleanliness