Reg. No.										

MANIPAL UNIVERSITY

FIRST SEMESTER B. ARCH. DEGREE EXAMINATION – FEBRUARY 2016

SUBJECT: ARC 105 & 107 - ARCHITECTURAL GRAPHICS I
(COMMON FOR 2010 & 2007 SCHEME)

Thursday, February 18, 2016

Time: 14:00 – 17:00 Hrs. Max. Marks: 50

Answer any FIVE FULL questions. Missing data, if any, may suitably be assumed.

1A. Construct an Ellipse by Intersecting Arcs method when the major axis is 150 mm and the minor axis is 90 mm.

1B. Construct a Parabola in a parallelogram of 130 mm and 70 mm sides if the included angle is 60°.

(5+5 = 10 marks)

2A. Construct a Rectangular Hyperbola when a point on it is at distances of 40mm and 50 mm from the two asymptotes.

2B. A line AB 75 mm in length is inclined to HP at 45° and VP at 30°. Point A is 20 mm above HP and 30 mm in front of VP and is nearer to HP and VP than point B. Draw its projections.

(5+5 = 10 marks)

3A. A square lamina of 40 mm sides is resting on HP with an edge touching HP. The lamina is inclined to HP at 45° and the edge on which it rests is inclined to VP at 30°. Draw its projections.

3B. A circular lamina of 60 mm diameter is resting on HP with a point on its circumference touching HP. The lamina is inclined to HP at 30°. Draw its projections if the diameter passing through the point on which it lies is inclined to VP at 45°.

(5+5 = 10 marks)

4. A hexagonal prism of base sides 25 mm and height 55 mm is resting on HP with a base corner touching HP such that the base edges containing that corner are equally inclined to HP. The base of the prism is inclined to HP at 30° and the axis of the prism appears to be inclined to VP at 30°. Draw its projections.

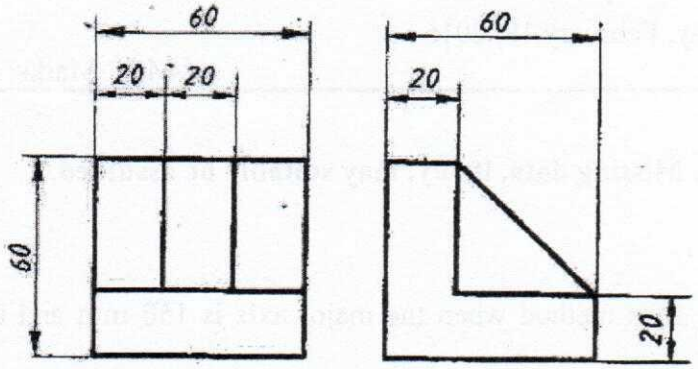
(10 marks)

5. A cone of base diameter 50 mm and axis height 75 mm is resting on HP with its generator touching HP. The axis appears to be inclined to VP at 40°. Draw its projections.

(10 marks)

6A. Draw the isometric projection of an object whose orthographic projections are shown in figure '6A' below.

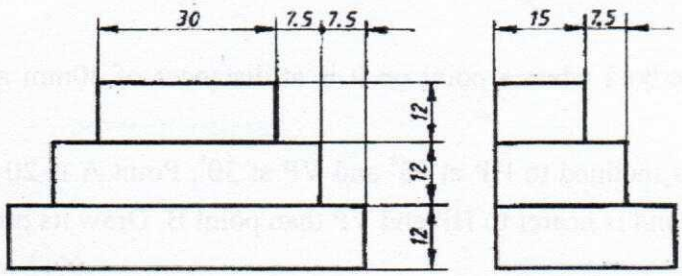
6B. Draw the axonometric projection of an object whose orthographic projections are shown in figure '6B' below.



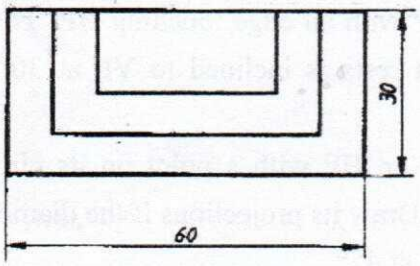
Front elevation Side elevation

All dimensions are in mm.

FIGURE: 6A



Front elevation Side elevation



Plan

All dimensions are in mm.

FIGURE: 6B

(5+5 = 10 marks)