Reg. No. :

Question Paper Code: 41107

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2016

First Semester

Civil Engineering

14UME107-ENGINEERING GRAPHICS

(Common to ALL branches)

(Regulation 2014)

Duration: Threehours   Maximum: 100 Marks

Answer ALL Questions

(5 x 20 = 100 Marks)

1. (a) The midpoint of a straight line *AB* 90 *mm* long is 60 *mm* above HP and 50 *mm* in front of VP. It is inclined 45° to VP and 30° to HP. Draw the projections of the line.   (20)

Or

   (b) A pentagonal lamina of side 30 *mm* rests on the ground with one of its sides inclined at 30° to VP while the surface of the lamina is inclined at 45º to HP. Draw the projections of the lamina.   (20)

2. (a) A cone of base diameter 50 *mm* and axis height 65 *mm* is resting on HP on one of its generators with its axis parallel to VP. Draw its projections.   (20)

Or

   (b) A hexagonal prism of side of base 25 *mm* and axis 50 *mm* long is freely suspended from a corner of one end. Draw its projections by change of position method.   (20)

3. (a) A cone of base diameter 50 *mm* and axis length 65 *mm* stands with its base on HP. Draw the true shape of section made by a plane perpendicular to VP and inclined to the HP at 50° and passing through a point on the basic circle of the cone. (20)

Or

(b) A pentagonal pyramid has a base side of 30 *mm* and axis height of 70 *mm*. It rests with its base on HP such that one of the base edges perpendicular to VP. The pyramid is cut by a plane which bisects the axis and is inclined at 30° to HP. Draw the development of the remaining portion of the pyramid. (20)

4. (a) Draw the isometric view of a frustum of a hexagonal pyramid when it is resting on its base on the HP with two sides of the base parallel to the VP. The side of base is 20 *mm* and top 8 *mm*. The height of the frustum is 55 *mm*. (20)

Or

(b) A cone of base diameter 50 *mm* and height 55 *mm* is resting on its base on the HP. It is cut by a plane perpendicular to the VP and inclined of 30° to the HP. The plane meets the axis at a distance of 25 *mm* from the apex. Draw the isometric projection of the truncated cone. (20)

5. (a) Draw the top view, front view and side view of the given object. The slot is in the shape of an inverted prism. All the dimensions are in *mm*. (20)
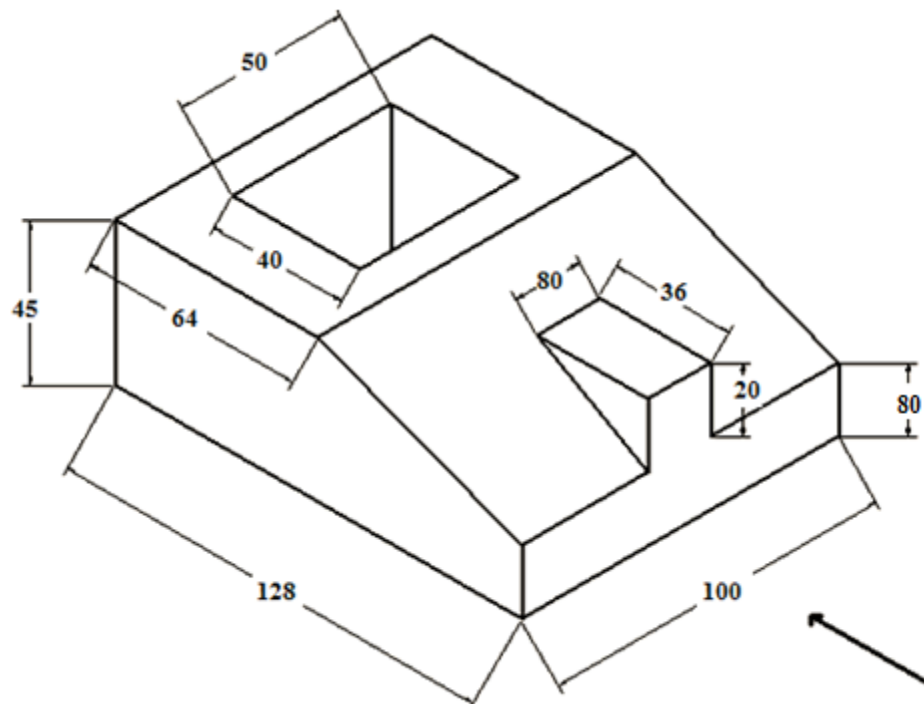
Or

(b) Draw the top view, front view and side view of the given object. All the dimensions are in *mm*. (20)

41107