1047

Code : 15CE12D

I Semester Diploma Examination, Nov./Dec. 2017

ENGINEERING DRAWING – I

Time : 4 Hours]

[Max. Marks : 100

Note : Answer any **four** questions from Section – **A** and any **four** questions from Section – **B**.
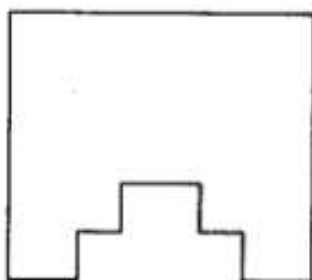
SECTION – A

1. Print the following statement in single stroke vertical capital letters of height 20 mm.

   DEPARTMENT OF CIVIL ENGINEERING.

   10

2. Copy the given sketch to full scale and dimension it by adopting aligned system with chain dimensioning.

   10

3. Draw a common external tangent to two circles of radius 40 mm and 20 mm whose centres are 90 mm apart.

   10

4. Inscribe in a regular Hexagon of side 60 mm, three equal circles touching one of the side and other two circles.

   10

5. A ball thrown from the ground reaches a maximum height of 45 metres and returns to the ground at a distance of 100 metres from the point of discharge.

   Trace the path of ball in space

   Take a scale of 1 : 1000

   Adopt rectangle method.

   10

[Turn over

6. Draw the three principal views of a point 'P' lying 35 mm in front of VP, 30 mm above HP and is 30 mm from the left profile plane. 10

SECTION – B

7. An ellipse has the major axis and minor axis in the ratio 3 : 2. Draw the ellipse, when the major axis is 135 mm by adopting concentric circle method. 15

8. Construct a diagonal scale to measure 1/100th, 1/10th of a metre and long enough to measure upto 5 metre, when 1 metre is represented by 3 centimeter. Find the RF, length of scale and indicate on the scale distances of 2.67 metres and 3.89 metres. 15

9. Draw the projection of the line PQ measuring 70 mm inclined at 30° to HP and parallel to VP. The line is 30 mm in front of VP and one of its end is 20 mm above HP and 80 mm from the right PP. 15

10. The front view of a 90 mm long line PQ measures 65 mm. The line is inclined at 30° to HP. Its end P is 20 mm above HP and 15 mm in front of VP. Complete the projections and determine its true inclination with VP. 15

11. An equilateral triangle lamina of side 40 mm is resting with one of its corner on HP. The surface of lamina is inclined at 45° to HP and the side opposite to the corner on which the lamina rests is inclined at 30° to VP. Draw the projections of lamina. 15

12. A regular pentagonal lamina has its side of 40 mm. It is resting with one of its corners on HP so that the side opposite to this touches VP. The plane surface of the lamina is inclined at 30° to HP. Draw its projections. 15