

**Half-Yearly Examination—2013****Class XI****(English Version)****Subject : Engineering Drawing 1st Paper****Time : 3 Hours****Full Marks – 60****[ N. B. : All questions are of equal value Construction process is unnecessary ]**

1. The base of a triangle, an angle adjacent to the base and sum of other two sides has given. Draw the triangle.  
**Or,**  
Write the following word at 5:4 ratios with block letter.  
"BANGLADESH"
2. Draw an exterior tangent to two unequal circles.  
**Or,**  
Draw an equilateral triangle equal in area to a given square.
3. Draw a regular hexagon who's the length of one side is 30 mm.  
**Or,**  
Draw a regular pentagon who's the length of one side is 30 mm.
4. A stair has three steps. The length of every step is 100 mm. width is 25 mm. and height is 12.5 mm. Draw the isometric view.  
**Or,**  
A cube of 30 mm. sides rest centrally on the top surface of a cube of 60 mm. sides. Draw isometric view of its combination.
5. A circular lamina of 50 mm. diameter resting on its circumference on horizontal plane in such a way staying that, the lamina making at an angle of  $50^\circ$  with horizontal plane. Draw projection of the lamina.  
**Or,**  
A regular hexagonal lamina of 25 mm. sides resting on its edge on horizontal plane in such a way staying that, the lamina making at an angle of  $50^\circ$  with horizontal plane and two of its parallel sides are parallel to the vertical plane. Draw projection of the lamina.
6. A cube of 30 mm. sides resting on its edge on horizontal plane in such a way staying that, its base at an angle of  $30^\circ$  with horizontal plane and two of its vertical surface is an angle of  $40^\circ$  with vertical plane. Draw projection of the cube.  
**Or,**  
The length of every sides of base of a square pyramid is 25 mm. and crest is 65 mm. It is resting on triangular surface on horizontal plane is such a way laying that, its axis making at an angle of  $40^\circ$  with vertical plane. Draw projection of the pyramid.