

Roll Number		
-------------	--	--

SET A



**INDIAN SCHOOL MUSCAT  
FIRST TERM EXAMINATION  
ENGINEERING GRAPHICS**

CLASS: XI

Sub. : 046

Time Allotted: 3 Hrs

30.09.2018

Max. Marks: 70

**General Instructions:**

1. **USE BOTH THE SIDES OF THE DRAWING SHEET.**
2. **FOLLOW FIRST ANGLE PROJECTION METHOD .**
3. **NEATNESS AND ACCURACY WILL BE DULY AWARDED.**
4. **ALL DIMENSIONS IN MM**

- |    |  |    |
|----|--|----|
| 1  | Construct a Pentagon and Hexagon upon a common base of side 30 mm.   | 4  |
| 2  | Construct a triangle given base ,BC = 60 mm median BE = 45 mm and median CF = 48 mm.   | 4  |
| 3  | Construct a Rhomboid given the diagonals =80 mm and 50 mm. Angle between the diagonals =60° .  | 4  |
| 4  | Inscribe 6 equal semicircles in a regular hexagon of side 40 mm, each semicircle touching one side of the hexagon.   | 7  |
| 5  | Two pulleys of diameter 200 mm and 400 mm are connected by a flat belt in open system. Draw the line diagram of the system. The distance between the centers is equal to 800mm and the line joining the centers is vertical.                   | 7  |
| 6  | Draw a helix of 72 mm pitch for one revolution around a right circular cone of diameter 60mm and height 72 mm. Also show the plan and development of the helix.  | 10 |
| 7  | The distance between the foci of an ellipse is 80 mm and minor axis is 60 mm .Determine the length of the major axis and construct ellipse by intersecting arcs method.  | 10 |
| 8  | Draw the orthographic projection of the followings points-<br>a. Point H in VP and 40 mm below HP.<br>b. Point D is in HP and 25 mm in front of VP.<br>c. Point G 40 mm below HP and 25 mm in front of VP.<br>d. Point F is both in VP and HP. | 4  |
| 9  | A 60 ° set square of 100 mm longest side is so kept that that the longest side is in HP,making an angle of 30° with VP and set square itself is inclined at 45° to HP.Draw the projections of the set square.                                  | 10 |
| 10 | A thin rectangular plate of side 60 mm x 30 mm has its shorter side in VP and inclined at 30° to HP. Project its top view if its front view is a square of 30mm long side.   | 10 |

**End of the Question Paper**