INDIAN SCHOOL MUSCAT
FIRST TERM EXAMINATION
ENGINEERING GRAPHICS

CLASS: XI   Sub. Code: 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 square , given the sum of diagonal and side 80 mm.	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 single start helix of 80 mm pitch on a vertical cylinder of diameter 50 mm and develop 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
	    a. Point H in VP and 40 mm below HP.
	    b. Point D is in HP and 25 mm in front of VP.
	    c. Point G 40 mm below HP and 25 mm in front of VP.
	    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	Draw the projections of a rhombus having diagonals 96 mm and 48 mm long, the smaller diagonal of which is parallel to both the principal planes, while the other is inclined at 30° to HP. One corner is in HP and the center is 15 mm in front of VP.	10

End of the Question Paper