SHEET 1

PENANG SANGAM HIGH SCHOOL
YEAR 11
TECHNICAL DRAWING

WORKSHEET – 1

QUESTION 1

Given:

The sketch of a Tile Pattern, the starting centre lines and an equilateral triangle ABC. **(10 marks)**

Required:

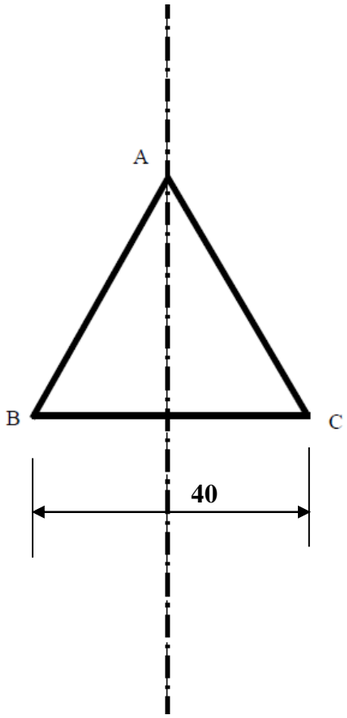
(i) Enlarge the given triangle by a scale of 2:1 **(2 marks)**

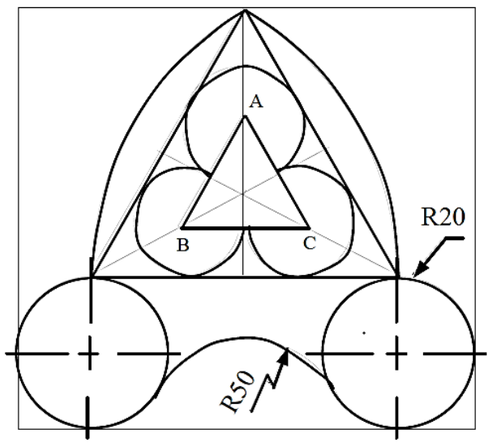
(ii) Draw three circles inscribed inside the enlarged triangle and show all PCs clearly. **(3 marks)**

(iii) Draw two arcs from the vertices of the enlarged triangle as shown on the sketch. **(2 marks)**

(iv) Complete the base by drawing two equal circles (R20) touching the vertices of the enlarged triangle. **(2 marks)**

(v) Draw a tangential arc of radius 50 and show its PCs clearly. **(1 mark)**





SKETCH: NTS

Q1 (i)			
1	Correct Method	1	
2	Correct Line work	1	
Q1 (ii)			
1	Correct Centers	1	
2	Correct Circles	1	
3	Correct Line work	1	
Q1 (iii)			
1	Correct Arcs	2	
Q1 (iv)			
1	Correct Centers	1	
2	Correct Circle	1	
Q1 (v)			
1	Correct Center	½	
2	Correct Arc	½	

QUESTION 2

PART A **(5 marks)**

Given:

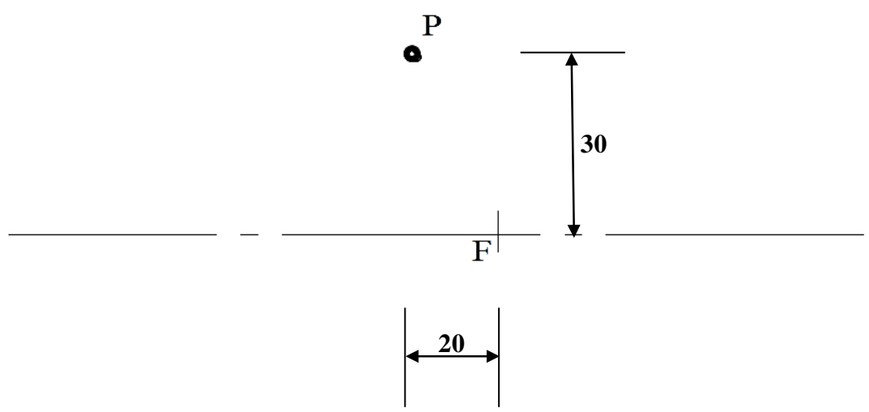
A sketch of the curve, its focal point and a point **P** on the conic section where the distance between the focal point and vertex (FV) and directrix and vertex (DV) are equal.

Required:

(i) Name the conic section.

_____ **(1 mark)**

(ii) Construct the conic section. **(4 marks)**



PART B **(5 marks)**

Given:

Construct a Plain Reduction Scale of 1:50 to read Metres and Tenths of a Metre up to 7 metres.

Required:

(i) Calculate the scale length of the plain scale. **(1 mark)**

Scale length = _____

(ii) Calculate the number of equal parts of the scale. **(1 mark)**

No. of equal parts = _____

(ii) Determine the number of equal parts for the first part/block of the plain scale.

No. of equal parts for the first block = _____ **(1 mark)**

(iv) Construct the plain scale. **(2 marks)**

Q2 A (i)			
1	Correct Name	1	
Q2 A (ii)			
1	Correct Directrix Located	1	
2	Correct Ratio Line	1	
3	Correct Shape	1	
4	Correct Line work	1	

THE END