1.The questions in which two circles named S1 and S2 are given and we have to find the family of circles passing through the point of intersection of these two circles is-

S1+KS2=0,

Where k is constant and k is not equal to -1.

2.Similarly, instead of circles, there is one line L1=0 and 1 circle S1=0 is given then family of circle will be,

S1+KL2=0,

Where k is constant and k is not equal to -1.

3.In case, when circle passes through two given points (x1,y1) &(x2,x2), the family of circle is given by:

$(x1-x)(x2-x)+(y-y1)(y-y2)=0$