With a system of three components, four variables are possible; the pressure, temperatureand two concentration terms (the concentration of the third component will be automaticallyfixed). Under such conditions, the phase properties are best defined by using the triangular diagram. This contention is borne out by the fact that in an equilateral triangle the sum of Pa PbPc (also for any point other than P) is always equal to the length of any one side (comesponding to a total of 100%). If components A, B and C are completely miscible with each other at all proportions, then any point inside the triangle represents a system of three components and one phase, therefore F, the number of degrees of freedom, is 2, which means that the concentrations of any two components can be varied with respect to one another while that of the third component is maintained constant. If componentA is gradually added to the above mixture, the composition, will vary following points on theline AX. If A is completely miscible with both B and C, it will distribute itself between the twolayers and eventually a composition corresponding to point Mis reached where complete miscibility is observed. On an equilateral triangle (as shown in figure below) .(the apexes A, B and C represent pure components (100% each