

Duty 01

A magma **M** of basic chemical composition was formed at depth and will rise to the surface without changing its chemical composition, to give a volcanic rock Rv after crystallization.

- 1) What is the silica content of this magma? On the mineralogical classification diagram below, three rocks (A, B and C) of different mineralogical compositions are represented,
- 2) Which of these three rocks is Rv (result of the crystallization of our magma M)?
- 3) Give the name of the rock **VR**,
- 4) From this diagram give the mineralogical composition of the rock Rv (minerals and their percentages)
- 5) What would be the nature of the plagioclases of the rock **VR**?
- 6) What would be the name of the rock resulting from this magma if the emplacement is at depth?

