

### Correction of Duty 1:

- 1) Magma M being basic its silica content would be between 45% and 50%,
- 2) Rock Rv is a volcanic rock from basic magma M so on the graph it would be rock B because its Si content is between 45 and 50%,
- 3) Its name is Basalt,
- 4) The chemical composition of rock Rv can be deduced from the diagram, the minerals that compose it are those in the field is cut by the projection line and the composition of each of them can be deduced from the y-axis,
- 5) The plagioclases of this Rv rock will be calcic (see diagram)
- 6) If the M magma was deposited at depth, it would then give rise to a plutonic rock and its name would be a Gabbro (equivalent to basalt).

| Mineral                | Interval on the y-axis |     |
|------------------------|------------------------|-----|
| Olivine                | 0 – 10%                | 10  |
| Pyroxene               | 10 – 80%               | 70  |
| Plagioclase            | 80 – 100%              | 20  |
| Total accumulated in % |                        | 100 |

