

Sl. No. of Q.P. 2289

- a) Name of Course: B. Sc. Geology Second Sem. FYUP
- b) Semester/annual: IInd
- c) Name of the paper: Igneous Petrology
- d) Unique Paper Code: 2191202

F-4

Maximum Marks: 100

Time: 3 hours

Note: Answer any five questions. All questions carry equal marks.

- Q. 1 Discuss the role of petrologist ? In what way is the Earth a heat engine capable of doing work ?
- Q. 2. Write a note on the historical development of the classification of igneous rocks. Discuss IUGS classification of mafic rocks.
- Q. 3 Using phase diagrams, discuss crystallization of two component magma system citing an example of a feldspar
- Q. 4 Give definition of magma. Discuss about its origin. Comment upon Igneous Tectonic Association of rocks.
- Q. 5 Write short notes on any three of the following:
 - a. Fractional crystallization b. Myrmekite c. Graphic intergrowth d. Flood basalt magmatism
- Q. 6 Distinguish any two of the following:
 - a. Simple and compound lava flows b. Porphyritic and poikilitic textures c. Lacolith and lopolith
- Q. 7 Discuss the role of mantle in magma generation.
- Q. 8 Write petrological-chemical characters and origin of any *two* of the following:
 - a. Kimberlites b. Anorthosites c. Komatiites