

Ph.D. Coursework Examination, July 2023

APPLIED GEOLOGY

Course-III: Instrumentation & Techniques in Earth Science

Time: 3 Hours

Max. Marks: 70

I) Answer ALL of the following

(10X2=20)

- a) Sample
- b) DTA
- c) EPMA
- d) Desktop study
- e) XRD
- f) Function of petrological microscope
- g) Petrologist mean
- h) Petrography
- i) Geological map
- j) GPS

II) Answer any FOUR of the following

(4X5=20)

- 1. Briefly explain what do you mean by geological map?
- 2. Write a note on Energy-dispersive X-ray spectroscopy.
- 3. Give the importance of inductively coupled plasma mass spectrometry (ICP-MS).
- 4. What is difference between compound and stereo microscope?
- 5. Describe the types of topographic symbols?

III) Answer any THREE of the following

(3X10=30)

- 6. Give a detailed account on geological field report
- 7. Discuss the working principle of Scanning Electron Microscope.
- 8. Describe the criteria of a geological field mapping?
- 9. Give a detailed account on stages of geological field mapping?
