

Ph. D. (GEOLOGY) (PHDGY)

Term-End Examination

December, 2024

**RGY-102 : RESEARCH TECHNIQUES IN
GEOLOGY**

Time : 3 Hours

Maximum Marks : 100

Note : (i) *Answer any **five** questions.*

(ii) *All questions carry equal marks.*

1. Discuss the steps involved in collecting the geological data while carrying out fieldwork in igneous terrain. 20
2. Describe the principles of X-Ray Diffraction (XRD) technique. Add a note on applications of XRD in Geology. 20
3. Discuss the principle and working of a petrological microscope with the help of a well labelled diagram. 20

4. Discuss the applications of remote sensing and GIS techniques in geological research. 20
5. Give an account of the points to be considered while organising a geological fieldwork in the Himalayan terrain. 20
6. Explain the steps involved in groundwater sample collection. 20
7. Write short notes on any *two* of the following :
2×10=20
 - (a) Field safety measures
 - (b) Documentation of the data in field diary
 - (c) Reconnaissance survey
 - (d) Scanning Electron Microscope
8. Write short notes on any *two* of the following :
2×10=20
 - (a) Applications of GNSS
 - (b) Field Kit
 - (c) Flame photometer
 - (d) Ore microscopy

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