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RGY-102

Ph. D. GEOLOGY

(PHDGY)

Term-End Examination

June, 2023

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

Time : 3 Hours

Maximum Marks : 100

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

(ii) *All questions carry equal marks.*

1. How would you collect field data in igneous and metamorphic terrain ? Add a note on the procedure of drawing field sections and sketches in your field diary. 20
2. Discuss in detail the methods involved in the sample preparation for petrological investigation of coal. 20
3. Explain in detail various field and laboratory techniques involved in collecting and processing of samples for micropalaeontological research.

20

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4. Describe the basic principle and working of Atomic Absorption Spectrometry (AAS). Give a neat well labelled line diagram in support of your answer. Add a note on the sample preparation for this technique. 20
5. Discuss the application of GIS and GPS in geological research. 20
6. Explain the points to be kept in mind while planning a geological fieldwork. 20
7. Write short notes on any *two* of the following :
2×10=20
 - (a) Site selection
 - (b) Field kit
 - (c) Importance of ground truthing
 - (d) Geospatial data
8. Write short notes on any *two* of the following :
2×10=20
 - (a) X-Ray diffraction
 - (b) Ore microscopy
 - (c) Sampling methods in environmental geology
 - (d) Water sample preparation for hydro-geological analysis