

**23P434**

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Name : .....

Reg. No : .....

**FOURTH SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2025**

(CBCSS-PG)

(Regular/Supplementary/Improvement)

**CC19P GEL4 E04A - EXPLORATION GEOLOGY**

(Applied Geology)

(2019 Admission onwards)

Time: 3 Hours

Maximum: 30 Weightage

**Part-A**

Answer any *four* questions. Each question carries 2 weightage.

1. What are the differences between percussion and rotary drilling.
2. Define primary and secondary dispersion patterns.
3. Explain some common geochemical association of elements.
4. Describe geobotanical indicators.
5. Explain Equi potential line method.
6. Describe terrain correction in gravity surveying.
7. Describe Neutron gamma ray log.

**(4 × 2 = 8 Weightage)**

**Part-B**

Answer any *four* questions. Each question carries 3 weightage.

8. Describe the ore reserve category with the help of McKelvy box.
9. Discuss the distribution of elements in earth materials based on geochemical cycle.
10. Discuss Seismic and resistivity methods.
11. Summarize Schlumberger methods.
12. Describe the interpretation of magnetic anomalies.
13. Describe the velocity determination using Normal Moveout.
14. Instantiate Alpha Beta and Gamma Rays.

**(4 × 3 = 12 Weightage)**

**Part-C**

Answer any *two* questions. Each question carries 5 weightage.

15. What is the scope of detailed mineral exploration?

16. Describe the primary dispersion pattern of deep seated origin.
17. Discuss the application of seismic methods in exploration.
18. Explain principles of GM counter and Scintilometers.

**(2 × 5 = 10 Weightage)**

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