

**PD-184 CV-19**  
**(581) M.Sc. Geology (Ist Semester)**  
**Examination Dec.-2020**  
**GEOCHEMISTRY**  
**Paper - III**

**Time : Three Hours]**

**[Maximum Marks : 080**

**[Minimum Pass Marks :**

नोट : दोनों खण्डों से निर्देशानुसार उत्तर दीजिये। प्रश्नों के अंक उनके दाहिनी ओर अंकित हैं।

Note : Answer from both the Section as directed. The figures in the right hand margin indicate marks.

**SECTION-'A'**

1. Answer the following objective type questions: 1 X 10 = 10
- What are the components of solar system?
  - Which is most abundant element in universe?
  - What do you mean by Free Energy?
  - Write down about Gibb's Phase Rule.
  - Which is most abundant element in 'Core'?
  - What is depth zone of Mante?
  - What do you mean by Soil Profile?
  - Explain Redox in natural water.
  - Name three stable Isotopes.
  - Which is prominent component of River Water?

**SECTION-'B'**

2. Answer following short type questions: 2 X 5 = 10
- Write a note on composition of Meteorites.
  - Write a note on geochemistry of crust.
  - Write a note on formation of core.
  - Write a note on geochemical properties of clay.
  - Write a note on distribution of  $\text{CO}_2$  in ocean.

**SECTION-'C'**

12 X 5 = 60

3. Write a note on cosmic abundance of elements.  
Or  
Describe the geochemical classification of elements.
4. Write down fundamental law of thermodynamics.  
Or  
Explain the Geochemistry of Crust.
5. Write a note on composition of mantle.  
Or  
Write a note on formation of core.
6. Write a note on geochemical properties of clay.  
Or  
Write notes on:-  
(a) Soil profile                      (b) Eutrophication
7. Describe the basics of Stable Isotope Geochemistry.  
Or  
Write notes on composition of sea-water.