

8. What are Earth's resources? How their sustainable use is necessary for the future of mankind?

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 1257

D

Unique Paper Code : 2194001001

Name of the Paper : Essentials of Geology (GE)

Name of the Course : B.Sc. Hons Geology (NEP)

Semester : I

Duration : 3 Hours **Maximum Marks : 90**

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **any five** questions.
3. **All** questions carry equal marks.

1. Answer the following questions :

(a) Transition zone between mantle and core is known as

- (b) What is the age of the oldest fossil found on the Earth?
- (c) What is focus of an earthquake?
- (d) Where does the Coriolis Effect become zero?
- (e) Write the name of the youngest mountain chain on Earth.
- (f) Which planet of the solar system is dominated by volcanoes?
- (g) What is the composition of the Earth's atmosphere?
- (h) What is the composition of Earth's core?
- (i) What is the age of Permian- Triassic Boundary?
2. Describe the general characteristics of Solar System and discuss the nebular hypothesis.
3. Differentiate between **any three** of the following pairs :

- (a) P wave shadow & S wave shadow zones
- (b) Transform Fault & Transcurrent Fault
- (c) Ekman spiral & Ekman transport
- (d) System & Period
4. With the help of a diagram, illustrate the layering and composition of the interior of the earth as deduced by seismic waves.
5. Write detailed notes on **any two** of the following :
- (a) Radioactive dating
- (b) Mantle convection
- (c) Geodynamo
6. What is thermohaline circulation? Explain its significance for the deep sea?
7. Describe the plate tectonic theory and explain why it is known as unifying theory.