

GEOLOGY

(Paper I)

Time Allowed : Three Hours

Maximum Marks : 300

QUESTION PAPER SPECIFIC INSTRUCTIONS

(Please read each of the following instructions carefully before attempting questions)

There are EIGHT questions divided in two Sections.

Candidate has to attempt FIVE questions in all.

Question Nos. 1 and 5 are compulsory and out of the remaining, any THREE are to be attempted choosing at least ONE question from each Section.

The number of marks carried by a question/part is indicated against it.

Wherever any assumptions are made for answering a question, they must be clearly indicated.

Word limit in questions, wherever specified, should be adhered to.

SECTION 'A'

1. Attempt any THREE of the following in about 200 words each: **20×3=60**
- (a) Radioactivity and age of the earth.
 - (b) Geomorphic cycles and their interpretation.
 - (c) Global Positioning System.
 - (d) Strain markers in deformed rocks.
2. What is a volcanic belt? Discuss causes and products of volcanoes. Illustrate your answer with suitable neat sketches. **60**
3. Discuss the following: **30×2=60**
- (a) Fluvial Landforms.
 - (b) Geographic Information System.
4. Discuss the classification and mechanics of Faults. Illustrate your answer with neat sketches. **60**

SECTION 'B'

5. Discuss any THREE of the following in about 200 words each: **20×3=60**
- (a) Application of microfossils in petroleum exploration.
 - (b) Chronostratigraphic classification.
 - (c) Classification of aquifers.
 - (d) Landslide-its causes and prevention.
6. Discuss the evolutionary trends of Trilobita. Illustrate your answer with sketches. **60**
7. Write about the following: **30×2=60**
- (a) Cambrian-Precambrian Boundary
 - (b) Climatic conditions in Gondwana time.
8. Discuss the following: **30×2=60**

- (a)** Water-bearing characteristics of rocks.
- (b)** Engineering properties of rocks.