

## **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. Write on any three of the following in about 200 words each:  

**20×3=60**

  - (a) Solar System
  - (b) Weathering and mass wasting
  - (c) Merits and limitations of Aerial Photography
  - (d) Principles of geologic mapping and map reading
2. Write an essay on 'Seismicity in India' Discuss your answer with suitable illustrations. **60**
3. Write about the following:  

**30×2=60**

  - (a) Relationship between Geomorphology and Hydrogeology.
  - (b) Electromagnetic Spectrum
4. Discuss in detail the behaviour of minerals and rocks under deformation conditions. Illustrate your answer with neat sketches. **60**

#### **SECTION 'B'**

5. Write on any three of the following in about 200 words each:  

**20×3=60**

  - (a) Megafossils and Microfossils
  - (b) Biostratigraphic Classification
  - (c) Hydrologic cycle
  - (d) Rain water harvesting
6. Discuss the evolutionary trends of Echinoidea. Illustrate your answer with sketches. **60**
7. Write about the following:  

**30×2=60**

  - (a) Cretaceous-Tertiary Boundary
  - (b) Evolution of Himalayas
8. Discuss the following:  

**30×2=60**

- (a)** Ground water chemistry
- (b)** Geological investigation for bridges