

GEOLOGY

(Paper II)

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. In about 200 words each, explain any three of the following:

20×3=60

 - (a) Crystallographic axes
 - (b) Deltaic environment
 - (c) Crystal fractionation in magmas
 - (d) Phase rule
2. What are tectosilicates? Describe the minerals of feldspar group giving their chemical composition physical properties and occurrence **60**
3. Write explanatory notes on the following:
 - (a) Deccan Trap volcanic province in India **30**
 - (b) Metasomatism and granitisation **30**
4. Describe the sedimentary structures & their significance. **60**

SECTION 'B'

5. In about 200 words each, write notes on any three of the following:

20×3=60

 - (a) Environmental effects of opencast mining
 - (b) Offshore petroleum and gas resource of India
 - (c) Earthquake risk in India
 - (d) Classification of reserves
6. Write notes on the following:
 - (a) Formation of ore-deposits in magmatic concentration **30**
 - (b) Marine manganese nodules as a resource **30**
7. Write notes on the following:
 - (a) Techniques of sampling **30**
 - (b) Longwall mining of coal **30**
8. Write explanatory notes on the following:

(a)	Anthropogenic toxic elements in urban environment	30
(b)	Types of natural hazards with reference to damage and control of floods in India	30