

This question paper contains 4 printed pages ]

Code No. : 11(I) Roll No. ....

0(CCEM)9

GEOLOGY

Paper : I

Time Allowed : 3 hours ]

[ Maximum Marks : 300

Note : (i) Answers must be written in English.

(ii) All questions carry equal marks.

(iii) Part/Parts of the same question must be answered together and should not be interposed between answers to other questions.

(iv) The answer to each question or part thereof should begin on a fresh page.

(v) Your answers should be precise and coherent.

(vi) Candidates must answer six questions in all. Candidates should attempt Question Number 1 which is compulsory and five questions out of the remaining questions, selecting one question from each Section.

P. T. O.

11(I)

1. Give a resume of the various theories put forward to account for the origin of the Earth and indicate briefly the nature of the Earth's interior.

**SECTION - A**

2. What are the causes of earthquakes ? Describe the geological effects of earthquakes.
3. Discuss the following with illustrations :
  - (a) Subduction zone magmatism
  - (b) Causes of continental drift
4. Briefly describe the following :
  - (a) Plate margins
  - (b) Craton
  - (c) Benioff zone

**SECTION - B**

5. Give an account of the geological work of river, giving suitable examples from India.
6. Discuss various processes and geomorphic features of an arid terrain.

**OR**

(2)



Describe the following and draw neat sketches :

- (a) Karst topography
- (b) Piedmont glacier
- (c) Caldera

**SECTION - C**

- 7. Discuss the role of confining pressure and temperature in deformation of rocks.
- 8. Define foliation. Discuss various types of foliations associated with rock folding. Give a brief account of origin of axial plane cleavage.

**OR**

Discuss the following with suitable diagrams :

- (a) Tectonites and their significance
- (b) Criteria for determination of stratigraphic superposition.

**SECTION - D**

- 9. Discuss the morphology, classification and geological history of trilobites.
- 10. Give an illustrated account of different types of test openings in foraminifera. Write briefly about their taxonomic importance.

(3)

P. T. O.

11(I)

OR

Write explanatory notes on the following :

- (a) Significance of palynological studies in Indian geology.
- (b) Distribution of spores in lower Gondwana.

**SECTION - E**

- 11. Discuss the problem of permo-triassic boundary in the Indian subcontinent.
- 12. Describe stratigraphic succession and lithology of Aravalli Supergroup. Comment upon the equivalent succession in India.