

1(CCE.M)3
Geology-I
(11)

Time : Three Hours]

[Maximum Marks : 300

INSTRUCTIONS

- (i) Answers must be written in English.
- (ii) The number of marks carried by each question is indicated at the end of the question.
- (iii) The answer to each question or part thereof should begin on a fresh page.
- (iv) Your answer should be precise and coherent.
- (v) The part/parts of the same question must be answered together and should not be interposed between answers to other questions.
- (vi) Candidates should attempt question no. **1** which is compulsory and **five** more questions selecting **one** question from each Section.
- (vii) If you encounter any typographical error, please read it as it appears in the text-book.
- (viii) Candidates are in their own interest advised to go through the General Instructions on the back side of the title page of the Answer Script for strict adherence.
- (ix) No continuation sheets shall be provided to any candidate under any circumstances.

(x) Candidates shall put a cross (x) on blank pages of Answer Script.

(xi) No blank page be left in between answer to various questions.

(xii) No programmable Calculator is allowed.

(xiii) No stencil (with different markings) is allowed.

1. Write short notes on the following :

(a) Deep sea trenches and island arcs

(b) Topography and its relationship with lithology

(c) Stress and strain ellipsoid

(d) Modes of preservation of fossils

(e) The Vindhyan Supergroup 5×15=75

SECTION–A

2. Explain the relationship between the volcanic rock and orogenic belt of the earth. 45

3. Write notes on :

(a) Origin of the Earth

(b) Internal structure of the Earth. 45

4. Briefly describe the following :

(a) Mid-oceanic ridges

(b) Sea-floor spreading

(c) Plate tectonics 45

SECTION–B

5. Give an account of the various factors that influence the development of major landforms. 45

6. Discuss the impact of tectonic process on the topography of drainage basins.

OR

What information pertaining to lithology and structure can be deciphered from the study of drainage patterns ? 45

SECTION–C

7. Explain the mechanics of Folding and Faulting. 45

8. Describe the mechanism of formation of planar and linear features in rocks.

OR

Give an outline of the tectonic framework of the Indian subcontinent. 45

SECTION–D

9. Describe the morphology and basis of classification of gastropods. 45

10. Write an essay on life through geological time.

OR

Write short notes on :

(a) Morphological characteristics of vertebrates

(b) Gondwana flora and its significance. 45

SECTION–E

11. Describe the lithology, structure and economic mineral deposits of the Aravalli supergroup. 45

12. Write notes on any **two** of the following :

(a) Stratigraphic nomenclature

(b) Boundary problems in stratigraphy

(c) Igneous activity in the India subcontinent. 45