

Serial No.

3451

D-VSF-L-TYA

GEOLOGY

Paper—I

Time Allowed : Three Hours

Maximum Marks : 200

INSTRUCTIONS

Candidates should attempt questions 1 and 5 which are compulsory, and any THREE of the remaining questions selecting at least ONE question from each Section.

All questions carry equal marks.

Marks allotted to parts of a question are indicated against each.

Answers must be written in ENGLISH only.

Suitable sketches may be drawn, wherever required.

SECTION—A

1. Write critical notes, within 150 words each, on any **FOUR** of the following :— 10×4=40
 - (a) Mid-oceanic Ridge
 - (b) Transform Fault

- (c) Digital Image Processing
 - (d) Mountain Building Processes
 - (e) Weathering and Mass Wasting.
2. (a) Write notes on Island Arcs. 20
- (b) What are hot spots ? Discuss causes and products of volcanoes. 20
3. Write notes on :— 10×4=40
- (a) Loess
 - (b) Morains
 - (c) Electromagnetic Spectrum
 - (d) Ox-bow Lake.
4. What are different types of unconformities ? Why are they significant in the study of geological history of an area ? 20+20

SECTION—B

5. Write notes, within 150 words each, on any **FOUR** of the following :— 10×4=40
- (a) Principles of Stratigraphy
 - (b) Hard part morphology of a typical gastropod
 - (c) Megafossils and Microfossils
 - (d) Pleistocene glaciation
 - (e) Groundwater management.

6. Discuss the following :— 20×2=40
- (a) Goniatic suture pattern.
 - (b) Role of Foraminifers in Biostratigraphic Correlation.
7. Discuss the following :—
- (a) Cuddapah Supergroup of type area. 20
 - (b) Discuss criteria for the correlation of Archaean rocks of India. 20
8. Write notes on :—
- (a) Geological investigations required for selection of a dam site. 20
 - (b) Porosity and permeability of rocks and their significance. 20

