

**2007-2008**  
**GEOLOGY**

The examination shall consist of three theory papers and one practical

	Hr/ Week	Exam/ Hr.	M. Marks
<b>A. Theory Papers</b>			
Paper I : Physical Geology	2	3	50
Paper II : Paleontology	2	3	50
Paper III: Crystallography and Minerology	2	3	50
<b>B. Practical:</b>	4	4	75
<b>Total Marks</b>			225

**Note:**

**Time: 3 hrs**

**MM 50**

**Note: Each paper will be divided into THREE parts.**

**Part I** - Ten questions (short type answer) two from each Unit will be asked. Each question will be of half a mark and the candidates are required to attempt **ALL** questions. **Total - 05 marks** (10x 3=30 min)

**Part II** - Five questions (answer not exceeding 250 words) one from each Unit with internal choice

will be asked and the candidates are required to attempt **ALL** questions. Each question will be of 05 marks. **Total 25 marks** (5x 12=60 min)

**Part III** - Four questions may be in parts covering all five Units (answer not exceeding 500 words) will be asked. The candidates are required to attempt any **TWO** questions. Each question will be of 10 marks. **Total 20 marks** (2x 45=90 min)

# PHYSICAL GEOLOGY

Time: 3 hrs

MM 50

## UNIT-1

Earth as a member of the Solar system. Origin and age of the Earth. Physical parameters of the Earth. Internal constitution of the Earth. Concept of lithosphere. Isostasy.

## UNIT-II

Surface features of the Earth. Distribution of land and ocean and peculiarities. Coral reefs. Distribution and causes of earthquakes. Seismic waves as indicators of the Earth's interior. Volcanoes: causes, distribution and types.

## UNIT-III

Weathering and erosion. Geological work of wind, groundwater, rivers, ocean, and glacier.

## UNIT-IV

Major tectonic features of the Earth: Mountain belts, shields, island arcs, trenches, mid-oceanic ridges and ocean basins.

## UNIT-V

Concept of Plate Tectonics. Evolution of Himalayas and Indo-Gangetic Plain.

# PAPER-II PALAEOONTOLOGY

Time: 3 hrs

MM 50

## UNIT-1

Definition, subdivisions of Paleontology and its relation with allied subjects. Fossils, their modes of preservation. Uses of fossils. Habitats and Habits. Elementary ideas of organic evolution. Classification and Nomenclature.

## UNIT-II

Morphology and geological distribution of Foraminifera, Graptoloidea and Echinoidea.

## UNIT-III

Morphology and geological distribution of Gastropoda, Pelecypoda and Cephalopoda.

## UNIT-IV

Morphology and geological distribution of Brachiopoda, Corals and Trilobita.

## UNIT-V

Elementary knowledge of Gondwana plant fossils. Vertebrate fossils of Siwaliks of India. Evolutionary history of man.