GEOGRAPHY (029)
Class - XI (2016-17)

One Theory Paper **70 Marks**
3 - 3½ Hours

Part A	**Fundamentals of Physical Geography**	**30 Marks**
	Unit-1: Geography as a discipline	**25**
	Unit-2: The Earth	
	Unit-3: Landforms	
	Unit-4: Climate	
	Unit-5: Water (Oceans)	
	Unit-6: Life on the Earth (OTBA)	
	Map and diagram	**5**
Part B	**India-Physical Environment**	**30 Marks**
	Unit-7: Introduction	**25**
	Unit-8: Physiography	
	Unit-9: Climate, vegetation and soil	
	Unit-10: Natural Hazards and Disasters	
	Map and Diagram	**5**
	Note: The question paper will include a section on **Open Text-based Assessment** of 10 marks from Unit - 6 (Part A). No other question will be asked from this unit. The open text material on this unit will be supplied to students in advance. These materials are designed to test the analytical and higher order thinking skills of students. The OTBA will be asked in the final examination to be held in March 2017.	**10**

Part C	**Practical Work**	**30 Marks**
	Unit-1: Fundamentals of Maps	**10 Marks**
	Unit-2: Topographic and Weather Maps	**15 Marks**
	Practical Record Book and Viva	**5 Marks**

Part A: Fundamentals of Physical Geography — 87 Periods

Unit-1: Geography as a Discipline — **04 Periods**

- Geography as an integrating discipline, as a science of spatial attributes.
- Branches of Geography; Physical Geography and Human Geography.
- Scope and Career Options

Unit-2: The Earth — **11 Periods**

- Origin and evolution of the earth; Interior of the earth.

- Wegener's continental drift theory and plate tectonics.
- Earthquakes and volcanoes: causes, types and effects.

Unit-3: Landforms **20 Periods**

- Rocks: major types of rocks and their characteristics.
- Geomorphic processes: weathering, mass wasting, erosion and deposition; soil-formation.
- Landforms and their evolution.

Unit 4: Climate **30 Periods**

- Atmosphere- composition and structure; elements of weather and climate.
- Insolation-angle of incidence and distribution; heat budget of the earth-heating and cooling of atmosphere (conduction, convection, terrestrial radiation and advection); temperature- factors controlling temperature; distribution of temperature-horizontal and vertical; inversion of temperature.
- Pressure-pressure belts; winds-planetary, seasonal and local; air masses and fronts; tropical and extratropical cyclones.
- Precipitation-evaporation; condensation-dew, frost, fog, mist and cloud; rainfall-types and world distribution.
- World climates-classification Koeppen, Global warming and climatic changes.
- Climate and Global Concerns.

Unit 5: Water (Oceans) **10 Periods**

- Basics of Oceanography
- Oceans - distribution of temperature and salinity.
- Movements of ocean water-waves, tides and currents; submarine reliefs.
- Ocean resources and pollution.

Unit 6: Life on the Earth **07 Periods**

- Biosphere - importance of plants and other organisms; biodiversity and conservation; ecosystem and ecological balance.

Map work on identification of features based on 1 to 6 units on the outline/Physical/Political map of the world. **05 Periods**

Part – B: India - Physical Environment 78 Periods

Unit-7: Introduction **04 Periods**

- Location, space relations, India's place in the world.

Unit-8: Physiography **28 Periods**

- Structure and Relief; Physiographic Divisions.
- Drainage systems: Concept of river basins, Watershed; the Himalayan and the Peninsular rivers.

Unit-9: Climate, Vegetation and Soil **28 Periods**

- Weather and climate - spatial and temporal distribution of temperature, pressure winds and rainfall, Indian monsoon: mechanism, onset and withdrawal, variability of rainfalls: spatial and temporal; use of weather charts; Climatic types (Koeppen).
- Natural vegetation-forest types and distribution; wild life; conservation; biosphere reserves.
- Soils - major types (ICAR's classification) and their distribution, soil degradation and conservation.

Unit-10: Natural Hazards and Disasters: Causes, Consequences and Management **14 Periods**

- Floods, Cloudbursts
- Droughts: types and impact
- Earthquakes and Tsunami
- Cyclones: features and impact
- Landslides

Map Work of features based on above units for locating and labelling on the Outline/Political/Physical map of India. **04 Periods**

Open Text based Assessment **05 Periods**

Part – C: Practical Work 50 Periods

Unit-1: Fundamentals of Maps **20 Periods**

- Geo spatial data, Concept of Geographical data matrix; Point, line, area data.
- Maps -types; scales-types; construction of simple linear scale, measuring distance; finding direction and use of symbols.
- Map projection- Latitude, longitude and time, typology, construction and properties of projection: Conical with one standard parallel and Mercator's projection. (only two projections)

Unit 2: Topographic and Weather Maps **30 Periods**

- Study of topographic maps (1 : 50,000 or 1 : 25,000 Survey of India maps); contour cross section and identification of landforms-slopes, hills, valleys, waterfall, cliffs; distribution of settlements.
- Aerial Photographs: Types and Geometry-vertical aerial photographs; difference between maps and aerial photographs; photo scale determination. Identification of physical and cultural features.
- Satellite imageries, stages in remote sensing data-acquisition, platform and sensors and data products, (photographic and digital).
- Use of weather instruments: thermometer, wet and dry-bulb thermometer, barometer, wind vane, rain gauge.

Practical Record Book and Viva Voce

Viva to be based on Practical Unit I and II only.

GEOGRAPHY (Code No. 029)
Class - XI (2016-17)

1. Theory - One Paper **Time: 3½ - 3 hours**
Marks: 70

Part-I	**Fundamentals of Physical Geography**	**30**
	Unit-1: Geography as a discipline	25
	Unit-2: The Earth	
	Unit -3: Landforms	
	Unit - 4: Climate	
	Unit - 5: Water (Oceans)	
	Unit - 6 : Life on the Earth (OTBA)	
	Map Work & Diagram	05
Part-II	**India- Physical Environment**	**30**
	Unit - 7 : Introduction	25
	Unit - 8 : Physiography	
	Unit – 9 : Climate, vegetation and soil	
	Unit -10 : Natural Hazards and Disasters	
	Map Work & Diagram	05
Part-III	**Note:** The question paper will include a section on **Open Text-based Assessment** of 10 marks from Unit – 6 (Part A). No other question will be asked from this unit. The open text material on this unit will be supplied to students in advance. These materials are designed to test the analytical and higher order thinking skills of students. The OTBA will be asked in the final examination to be held in March 2017.	**10**
	Total	**70**
Value Based Question from any unit 1-6 (Part- I), 7-10 (Part-II) - 3 Marks **Note: -** ***One Value Based Question can be taken from any unit 1-6 (Part -I), 7-10 (Part-II). Accordingly the weightage of the lessons can be reduced as per the discretion of the teacher.***		
Part -III	**Practical Work**	**30**
	Unit -1 : Fundamentals of Maps	10
	Unit - 2 : Topographic and Weather Maps	15
	Practical Record Book and Viva	05

2. Weightage to Difficulty Level

Estimated Difficulty Level	Percentage
(i) Easy (E)	20%
(ii) Average (AV)	60%
(iii) Difficult (D)	20%

QUESTION PAPER DESIGN 2016-17								
GEOGRAPHY (Theory)		Code No. 029						CLASS-XI
Time: 3 Hours		Max. Marks: 70						
S. No.	Typology of Questions	Learning Outcomes & Testing Skills	Short Answer (1 Mark)	Short Answer (3 Marks)	Long Answer I (5 Marks)	Map Skills based (5 Marks)	Marks	%
1	**Remembering-** (Knowledge based Simple recall questions, to know specific facts, terms, concepts, principles, or theories; Identify, define, or recite, information), Map skill based questions (Identification, location)	• Reasoning • Analytical Skills • Critical thinking	3	1	1	1 (identify location)	**16**	23%
2	**Understanding-** (Comprehension -to be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase information)		1	1	2	-	**14**	20%
3	**Application** (Use abstract information in concrete situation, to apply knowledge to new situations; Use given content to interpret a situation, provide an example, or solve a problem)		-	1	2	-	**13**	19%
4	**High Order Thinking Skills** (Analysis & Synthesis- Classify, compare, contrast, or differentiate between different pieces of information; Organize and/or integrate unique pieces of information from a variety of sources) (includes Map interpretation)		2	1	2 (OTBA)	1 (Map interpretion)	**20**	28%
5	**Evaluation-** (Appraise, judge, and/or justify the value or worth of a decision or outcome, or to predict outcomes based on values)		1	1+ 1(values based)	-	-	**7**	10%
Total			**7x1 =7**	**6x3=18**	**7x5=35**	**2x5=10**	**70 (22) Practical 30**	**100 %**
Time Estimated			**15 min.**	**60 min.**	**70 min.**	**20 min.**	**165+15 = 180 min**	

Note:

- No Chapterwise weightage, care to be taken to cover chapters in both books.
- The question paper will include a section on **Open Text-based Assessment** of 10 marks from Unit - 6 (Part A). No other question will be asked from this unit. The open text material on this unit will be supplied to students in advance. These materials are designed to test the analytical and higher order thinking skills of students. The OTBA will be asked in the final examination to be held in March 2017.