

# **ASANNAGAR MMT COLLEGE**

## **DEPARTMENT OF GEOGRAPHY,**

### **LESSON PLAN**

**GEO/G/CC/T/01: (Theory): Geotectonics and Geomorphology**

**1<sup>st</sup> Semester core programme**

**JULY-DECEMBER SESSION, 2022**

Credits-4

UNIT	TOPIC	TEACHER	TOTAL CLASS
Unit-1	Lithosphere – Internal Structure of Earth based on Seismic Evidence	Baidyanath Sarkar	4
Unit-2	Weathering: Types and Related Landforms	Baidyanath Sarkar	4
Unit-3	Plate Tectonics and its Associated Landforms	Baidyanath Sarkar	4
Unit-4	Landform Development in Arid Regions	Baidyanath Sarkar	4
Unit-5	Landform Development in Glaciated Regions	Baidyanath Sarkar	4
Unit-6	Development of Fluvial Landforms	Baidyanath Sarkar	3
Unit-7	Fluvial Cycle of Erosion – Davis and Penck	Baidyanath Sarkar	3
Unit-8	Hydrosphere: Hydrological Cycle, Ocean Bottom Relief Features, Tides and Ocean Currents	Baidyanath Sarkar	4

## **DEPARTMENT OF GEOGRAPHY, 1<sup>ST</sup> SEMESTER CORE PROGRAM LESSON PLAN**

**JULY-DECEMBER SESSION, 2022**

**GEO/G/CC/P/01: (Practical): Scale and Cartography**

Credits-2

Unit	Topic	Teacher	Total Class
Unit-1	Map Scale: Types and Application	Baidyanath Sarkar	2
Unit-2	Linear and Comparative Scale	Baidyanath Sarkar	3
Unit-3	Representation of Data: Dot, Proportional Circles, Choropleth, Flow Diagram	Baidyanath Sarkar	3
Unit-4	Taylor's Climograph and Hythergraph	Baidyanath Sarkar	2

**GEOGRAPHY 2<sup>ND</sup> SEMESTER PROGRAM**  
**GEO/G/CC/T/02: (Theory): Climatology, Soil and Biogeography**  
**JANUARY-JUNE SESSION, 2023**

Credits-4

UNIT	TOPIC	TEACHER	TOTAL CLASS
Unit-1	Elements of Weather and Climate; Thermal and Chemical Composition and Layering of the Atmosphere	Baidyanath Sarkar	4
Unit-2	Heat Balance, Pressure Belt and Planetary Wind Circulation System	Baidyanath Sarkar	4
Unit-3	Forms of Precipitation and Types of Rainfall	Baidyanath Sarkar	4
Unit-4	Tropical and Temperate Cyclones, Climatic Classification (Koppen)	Baidyanath Sarkar	4
Unit-5	Definition of Soil; Physical and Chemical Properties of Soil (Soil Texture, Colour and pH)	Baidyanath Sarkar	4
Unit-6	Soil Forming Factors; Soil Formation (Podzol and Laterite)	Baidyanath Sarkar	3
Unit-7	Definition of Biosphere and Biogeography; Meaning of Ecology, Ecosystem, Environment, Ecotone, Communities, Habitats and Biotopes	Baidyanath Sarkar	4
Unit-8	Environmental Problems and Management: Air Pollution, Bio-diversity Loss, Solid and Liquid Waste	Baidyanath Sarkar	3

**GEOGRAPHY 2<sup>ND</sup> SEMESTER PROGRAM**  
**GEO/G/CC/P/02: (Practical): Surveying and Levelling**  
**JANUARY-JUNE SESSION, 2023**

Credits-2

UNIT	TOPIC	TEACHER	TOTAL CLASS
Unit-1	Definition and Classification of Surveying	Baidyanath Sarkar	2
Unit-2	Open and Close Traversing by	Baidyanath Sarkar	4

	Prismatic Compass		
Unit-3	Drawing of Longitudinal Profile by Dumpy Level	Baidyanath Sarkar	4

### **DEPARTMENT OF GEOGRAPHY, 3<sup>RD</sup> SEMESTER HONOURS GE**

**JULY-DECEMBER SESSION,2022**

**GEO/H/GE/T/03/A: (Theory): Climate Change: Vulnerability and Adaptation**

Credits-6

UNIT	TOPIC	TEACHER	TOTAL CLASS
Unit-1	Science of Climate Change: Understanding Climate Change; Green House Gases and Global Warming; Global Climatic Assessment- IPCC Reports	Baidyanath Sarkar	8
Unit-2	Climate Change and Vulnerability: Physical Vulnerability; Economic Vulnerability; Social Vulnerability	Baidyanath Sarkar	8
Unit-3	Impact of Climate Change: Agriculture and Water; Flora and Fauna; Human Health	Baidyanath Sarkar	8
Unit-4	Adaptation and Mitigation: Global Initiatives with Particular Reference to South Asia	Baidyanath Sarkar	8
Unit-5	Key Concepts of National Action Plan of India on Climate Change; Role of Local Institutions (Urban Local Bodies, Panchayats) on Climatic Change Mitigation: Awareness and Action Programmes	Baidyanath Sarkar	8

### **DEPARTMENT OF GEOGRAPHY, 3<sup>RD</sup> SEMESTER CORE PROGRAM**

**GEO/G/CC/T/03: (Theory): Human Geography**

**JULY-DECEMBER SESSION,2022**

Credits-4

Unit	Topic	Teacher	Total Class
Unit-1	Definition, Nature, Major Subfields,	Baidyanath Sarkar	4

	Contemporary Relevance		
Unit-2	Space and Society: Cultural Regions; Race; Religion and Language	Baidyanath Sarkar	5
Unit-3	Population: Population Growth and Demographic Transition Theory	Baidyanath Sarkar	4
Unit-4	Types of Population Migration with Reference to India	Baidyanath Sarkar	4
Unit-5	World Population Distribution and Composition (Age, Gender and Literacy)	Baidyanath Sarkar	5
Unit-6	Settlements: Types and Patterns of Rural Settlements	Baidyanath Sarkar	4
Unit-7	Classification of Urban Settlements; Functional Classification of Towns	Baidyanath Sarkar	4

### **DEPARTMENT OF GEOGRAPHY, 3<sup>RD</sup> SEMESTER CORE PROGRAM**

**GEO/G/CC/P/03: (Practical): Map Projection and Map Interpretation**

**JULY-DECEMBER SESSION,2022**

Credits-2

Unit	Topic	Teacher	Total Class
Unit-1	Simple Conical Projection with One Standard Parallel	Baidyanath Sarkar	2
Unit-2	Cylindrical Equal Area Projection	Baidyanath Sarkar	2
Unit-3	Interpretation of Topographical Maps: relation between Physiography, Drainage and Settlement	Baidyanath Sarkar	3
Unit-4	Interpretation of Weather Maps (Pre-Monsoon, Monsoon and Post Monsoon)	Baidyanath Sarkar	3

### **DEPARTMENT OF GEOGRAPHY, 3<sup>RD</sup> SEMESTER CORE PROGRAM SEC**

**JULY-DECEMBER SESSION,2022**

**GEO/G/SEC/P/01/A: (Practical): Computer Basics and Computer Applications**

Credits-2

Unit	Topic	Teacher	Total Class
Unit-1	Numbering Systems; Binary Arithmetic	Baidyanath Sarkar	7
Unit-2	Data Computation, Storing and Formatting in Spreadsheets: Computation of Rank, Mean, Median, Mode, Standard Deviation, Moving Averages, Derivation of Correlation, Coefficient of Variation , Regression	Baidyanath Sarkar	8
Unit-3	. Preparation of Annotated Diagrams and its	Baidyanath Sarkar	8

	Interpretation: Scatter Diagram and Histogram		
Unit-4	Internet Surfing: Generation and Extraction of Information	Baidyanath Sarkar	7

## **GEOGRAPHY 4<sup>TH</sup> SEMESTER PROGRAM COURSE**

**GEO/G/CC/T/04: (Theory): Environmental Geography**

**January-June Session,2023**

Credits-4

UNIT	TOPIC	TEACHER	TOTAL CLASS
Unit-1	Concepts and approaches of Environmental Geography	Baidyanath Sarkar	4
Unit-2	Concept, Structure and Functions of Ecosystem	Baidyanath Sarkar	5
Unit-3	Definition of Biosphere, Meaning of Ecology, Econtone, Habitat, Community, Ecological Niche, Biotopics and Biomes	Baidyanath Sarkar	5
Unit-4	Enviromental Problems and Management: Air and Water Pollution	Baidyanath Sarkar	5
Unit-5	Environmental Programmes and Policies: MAB	Baidyanath Sarkar	4
Unit-6	Wetlands: Ramsar Sites in India	Baidyanath Sarkar	3
Unit-7	Human-Environment Relationship in Mountain and Coastal Regions	Baidyanath Sarkar	4

## **GEOGRAPHY 4<sup>TH</sup> SEMESTER PROGRAM COURSE**

**GEO/G/CC/P/04: (Practical): Field Work**

**January-June Session,2023**

Credits-2

UNIT	TOPIC	TEACHER	TOTAL CLASS
Unit-1	Preparation of Survey Schedule or Questionnaire for Air Pollution and Health Perception Survey	Baidyanath Sarkar	5
Unit-2	Mapping of Wetlands from Topographical Sheet	Baidyanath Sarkar	2
Unit-3	Mapping of Forest from Topographical Sheet	Baidyanath Sarkar	3

**GEOGRAPHY 4<sup>TH</sup> SEMESTER SEC PROGRAM COURSE**  
**GEO/G/SEC/P/02/B: (Practical): Field Work**  
**January-June Session,2023**

**2 Credits**

UNIT	TOPIC	TEACHER	TOTAL CLASS
1	<b>Field Work-</b> Students are required to carry out a comprehensive field work in a village/mouza/town/C.D.Block/ drainage basin selecting a particular <b>research problem</b> .	Baidyanath Sarkar	30

**DEPARTMENT OF GEOGRAPHY, 5<sup>TH</sup> SEMESTER CORE PROGRAM DSE**  
**GEO/G/DSE/T/01/A: (Theory): Geography of India**  
**JULY-DECEMBER SESSION,2022**

**Credits-6**

Unit	Topic	Teacher	Total Class
Unit-1	Physical Setting – Location, Structure and Relief, Drainage, Climate.	Baidyanath Sarkar	8
Unit-2	Population – Size and Growth since 1901, Population Distribution, Literacy, Sex Ratio.	Baidyanath Sarkar	8
Unit-3	Settlement System - Rural Settlement Types and Patterns, Urban Pattern.	Baidyanath Sarkar	8
Unit-4	4. Resource Base – Livestock (cattle and fisheries), Power (coal, and hydroelectricity), Minerals (iron ore and bauxite).	Baidyanath Sarkar	8
Unit-5	Economy – Agriculture (Rice, Wheat, Sugarcane, Groundnut, Cotton); Industries (Cotton Textile, Iron-Steel, Automobile), Transportation Modes (Road and Rail).	Baidyanath Sarkar	8

## ASANNAGAR MMT COLLEGE

### DEPARTMENT OF GEOGRAPHY, 5<sup>TH</sup> SEMESTER CORE PROGRAM

JULY-DECEMBER SESSION, 2022

#### GEO/G/GE/T/01: (Theory): Disaster Management

Credits-6

Unit	Topic	Teacher	Total Class
Unit-1	Definition and Concepts: Hazards, Disasters; Risk and Vulnerability; Classification of hazards	Baidyanath Sarkar	8
Unit-2	Disasters in India: (a) Flood: Causes, Impact, Distribution and Mapping; Landslide: Causes, Impact, Distribution and Mapping; Drought: Causes, Impact, Distribution and Mapping	Baidyanath Sarkar	8
Unit-3	Disasters in India: (b) Earthquake and Tsunami: Causes, Impact, Distribution and Mapping; Cyclone: Causes, Impact, Distribution and Mapping.	Baidyanath Sarkar	8
Unit-4	Manmade disasters: Causes, Impact, Distribution and Mapping of Soil erosion and Accidental release of toxic chemicals	Baidyanath Sarkar	8
Unit-5	Response and Mitigation to Disasters: Institutional set up, NDMA and NIDM; Indigenous Knowledge and Community-Based Disaster Management; Do's and Don'ts During and Post Disasters	Baidyanath Sarkar	8

### DEPARTMENT OF GEOGRAPHY, 6<sup>TH</sup> SEMESTER CORE PROGRAM DSE-2

JANUARY-JUNE SESSION, 2023

#### GEO/G/DSE/T/02/A: (Theory): Disaster Management

Credits-6

UNIT	TOPIC	TEACHER	TOTAL CLASS
UNIT-1	Definition and Concepts: Hazards, Disasters; Risk and Vulnerability; Classification of	Baidyanath Sarkar	8

	hazards		
UNIT-2	Disasters in India: (a) Flood: Causes, Impact, Distribution and Mapping; Landslide: Causes, Impact, Distribution and Mapping; Drought: Causes, Impact, Distribution and Mapping	Baidyanath Sarkar	8
UNIT-3	Disasters in India: (b) Earthquake and Tsunami: Causes, Impact, Distribution and Mapping; Cyclone: Causes, Impact, Distribution and Mapping.	Baidyanath Sarkar	8
UNIT-4	Manmade disasters: Causes, Impact, Distribution and Mapping of Soil erosion and Accidental release of toxic chemicals	Baidyanath Sarkar	8
UNIT-5	Response and Mitigation to Disasters: Institutional set up, NDMA and NIDM; Indigenous Knowledge and Community-Based Disaster Management; Do's and Don'ts During and Post Disasters	Baidyanath Sarkar	8

**DEPARTMENT OF GEOGRAPHY, 6<sup>TH</sup> SEMESTER CORE PROGRAM GE-2**  
**JANUARY-JUNE SESSION, 2023**  
**GEO/G/GE/T/02: (Theory): Sustainable Development**

**Credits-6**

Unit	Topic	Teacher	Total Class
Unit-1	Sustainable Development: Historical Background, Definition, Components, Limitations	Baidyanath Sarkar	4
Unit-2	Sustainable Regional Development: Need and examples from different Ecosystems	Baidyanath Sarkar	4
Unit-3	Inclusive Development: Education and Health	Baidyanath Sarkar	4
Unit-4	Climate change and sustainable development: Policies and global cooperation	Baidyanath Sarkar	4
Unit-5	Poverty and disease; Human right to health; Challenges of Universal Health Coverage	Baidyanath Sarkar	4
Unit-6	Sustainable Development Policies and Programmes: The proposal for SDGs at Rio+20; Illustrative SDGs; Goal-Based	Baidyanath Sarkar	4



	Development		
Unit-7	Sustainable Development: Financial issues	Baidyanath Sarkar	4
Unit-8	Good Governance for sustainable development	Baidyanath Sarkar	4
Unit-9	National Environmental Policy, Clean development mechanism	Baidyanath Sarkar	4
Unit-10	Sustainable regional resource development and livelihood security	Baidyanath Sarkar	4

**GEO/G/SEC/P/04/B: (Practical): Rocks and Minerals and their Megascopic Identification  
JANUARY-JUNE SESSION, 2023**

**2 Credits**

Unit	Name of the Topic	Teacher's Name	Total Class
Unit-1	Types and characteristics of rocks and minerals	Baidyanath Sarkar	5
Unit-2	<p>Megascopic identification of the following rocks and minerals mentioning their identifying characteristics.</p> <p>Name of the Rocks: Granite, Basalt, Dolerite, Shale, Limestone, Sandstone, Gneiss, Slate, Quartzite, Marble</p> <p>Name of the Minerals: Quartz, Feldspar, Mica (Muscovite and Biotite), Calcite, Bauxite, Magnetite, Haematite, Galena, Chalcopyrite.</p>	Baidyanath Sarkar	5