

Lesson Plan for CBCS Syllabus
Subject: Geography
Odd Semester

Semester	Paper	Unit	Topic	JULY – SEPTEMBER/ OCTOBER- DECEMBER	Faculty Name	
Semester I (HONOURS)	GEO-A-CC-1-01-TH (Geotectonics and Geomorphology) 60 Marks : 4 Credits	I	Earth's tectonic and structural evolution with reference to geological time scale	Nov	Amrita Kayal	
		I	Earth's interior with special reference to seismology: Isostasy	Nov	Kakali Das	
		I	Plate Tectonics	Sept, Nov	Dr. Vinay Limbu	
		I	Folds and Faults: origin and types	Nov	Amrita Kayal	
		II	Degradational Processes	Dec	Dr. Vinay Limbu	
		II	Processes of entrainment, transportation, and deposition by different geomorphic agents. Role of humans in landform development	Sept	Bablu Samanta	
		II	Development of river network and landforms on uniclinal and folded structures. Surface expression of faults	Nov	Bablu Samanta	
		II	Development of river network and landforms on granites, basalts and limestone	Dec	Amrita Kayal	
		II	Coastal processes and landforms.	Sept	Amrita Kayal	
		II	Glacial and Glacio-fluvial processes and landforms	Sept, Nov	Dr. Suvasree Dutta (Dasgupta)	
		II	Aeolian and fluvio-aeolian processes and landforms	Sept	Dr. Suvasree Dutta (Dasgupta)	
		II	Role of time in geomorphology: Schumm and Lichty,s model. Models on landscape evolution: views of Davis, Penck, King and Hack, Significance of systems approach	Sept, Nov	Puspendu Dhali	
	GEO-A-CC-1-01-P (Geotectonics and Geomorphology Lab) 30 Marks : 2 Credits	1	Measurement of dip and strike using clinometer	Sept, Nov	Bablu Samanta	
		2	Megascopic Identification of Minerals and Rocks	Sept, Nov	Dr. Suvasree Dutta (Dasgupta)	
		3	Extraction and interpretation of geomorphic information from Survey of India 1:50k topographical maps of plateau region	Nov, Dec	Kakali Das	
		4	Construction of hypsometric curve and derivation of hypsometric integer of a drainage basin (c. 5'x5') from Survey of India 1:50k topographical maps of plateau region	Nov, Dec	Puspendu Dhali	
	Semester I (HONOURS)	GEO-A-CC-1-02-TH (Cartographic Techniques) 60 Marks : 4 Credits	1	Maps-Components and Classification	Sept	Gouri Chakraborty
			2	Concept and application of scales: Liner scale, Comparative liner scale, Diagonal scale Vernier scale	Sept, Nov	Amrita Kayal
			3	Coordinate systems: Polar and rectangular	Nov	BABLU SAMANTA
4			Concept Of Generating Globe	Sept	Gouri Chakraborty	
5			Grids: Angular and linear systems of measurement	Nov	BABLU SAMANTA	
6			Bearing - Magnetic and True, Whole Circle & Reduced	Nov	Gouri Chakraborty	
7			Concept of geoid and spheroid with special reference to Everest and WGS-84	Nov	Bablu Samanta	
8			Map Projection- Classification, Properties & Uses	Sept, Oct	Gouri Chakraborty	
9			Concept and significance of UTM projection	Dec	Bablu Samanta	
10			Representation of data using dots, spheres and divided proportional circles	Sept, Nov	Dr. Vinay Limbu	
11			Representation of data using isopleths, choropleth and chorochromatic maps	Sept, Nov	Dr. Vinay Limbu	
12			Survey of India topographical maps: Reference scheme of old and open series. Information on the margin of maps	Dec	Bablu Samanta	

Semester I (HONOURS)	GEO-A-CC-1-02-P (Cartographic Techniques Lab) 30 Marks : 2 Credits	1	Graphical construction of scales: Plain, Comparative, diagonal and vernier	Sep	Amrita Kayal	
		2	Construction of projections: Polar Zenithal Stereographic, Simple Conic with one standard parallel, Bonnes's, Cylindrical Equal Area and Mercators	Oct, Nov	Gouri Chakraborty	
		3	Thematic Maps: Proportional squares, pie diagrams with proportional circles, dots and spheres	Nov, Dec	Dr. Vinay Limbu	
		4	Thematic maps: Choropleth, Isopleth and chorochromatic Maps	Sept, Nov	Dr. Vinay Limbu	
Semester III (HONOURS)	GEO-A-CC-3-05-TH (Climatology) 60 Marks : 4 Credits	I	Nature, composition and layering of atmosphere	Aug	Dr. Suvasree Dutta (Dasgupta)	
		I	Insolation: Controlling Factors, Heat Budget of the atmosphere	Aug	Dr. Suvasree Dutta (Dasgupta)	
		I	Temperature: horizontal and vertical distribution. Inversion of temperature: types, causes and consequences	Dec	BABLU SAMANTA	
		I	Overview of Climate Change: Greenhouse Effect, Formation, depletion and significance of the Ozone layer	Sept	Dr. Suvasree Dutta (Dasgupta)	
		II	Condensation: Processes and forms. Mechanism of precipitation: Bergeron-Findeison theory, collision and coalescence. Forms of precipitation	Aug, Sept	Kakali Das	
		II	Airmass: Typology, origin, characteristics and modification	Nov	Kakali Das	
		II	Fronts: Warm and Cold, frontogenesis and frontolysis	Nov	Kakali Das	
		II	Weather: Stability and instability, barotropic and baroclinic conditions	Sept	Dr. Suvasree Dutta (Dasgupta)	
		II	Circulation in the atmosphere: Planetary winds, Jet Streams & Index Cycle	July-Sept	Dr. Vinay Limbu	
		II	Atmospheric disturbances: Tropical & Mid-latitude Cyclones, Thunderstorms	Sept, Nov	Dr. Vinay Limbu	
		II	Monsoon circulation and mechanism with reference to India	July-Sept	Dr. Vinay Limbu	
		II	Climatic Classification after Thornthwaite & Oliver	Dec	Dr. Vinay Limbu	
	GEO-A-CC-3-05-P (Climatology Lab) 30 Marks : 2 Credits	1	Measurement of weather elements using analogue instruments: Mean daily temperature, air pressure, relative humidity and rainfall	July, Aug	Dr. Suvasree Dutta (Dasgupta)	
		2	Interpretation of daily weather map of India (any two): Pre-monsoon, Monsoon and Post Monsoon	Aug, Sep	Kakali Das	
		3	Construction & Interpretation of Hythergraph Climograph (G. Taylor)	July-Sept	Dr. Vinay Limbu	
		4	Construction and interpretation of wind rose	Sept	Dr. Suvasree Dutta (Dasgupta)	
	Semester III (HONOURS)	GEO-A-CC-3-06-TH (Hydrology and Oceanography) 60 Marks : 4 Credits	I	Systems Approach in Hydrology. Global Hydrological Cycle: Its Physical & Biological Role	Aug	Gouri Chakraborty
			I	Run Off: Controlling factors. Infiltration and evapotranspiration. Run Off Cycle	Sept	Gouri Chakraborty
			I	Drainage basin as a hydrological unit. Principles of water harvesting and watershed management	Sept	Puspendu Dhali
I			Groundwater: Occurrence and storage. Factors controlling recharge and discharge and movement	Nov	Puspendu Dhali	
II			Major relief features of ocean floor: Characteristics and origin according to plate tectonics	Sept	Kakali Das	
II			Physical & chemical properties of ocean water	Sept	Kakali Das	
II	Water mass, T-S Diagram	Nov	Amrita Kayal			

		II	Air sea interactions, Ocean water circulation, Wave and tide	Nov	Amrita Kayal	
		II	Ocean temperature and salinity: Distribution and determinants	Nov	Puspendu Dhali	
		II	Coral Reefs: Formation, Classification and Threats.	July, Sept	Dr. Vinay Limbu	
		II	Marine Resources : Classification & Sustainable Utilization	July, Sept	Dr. Vinay Limbu	
		II	Sea Level Changes : Types and Causes	July, Sept	Dr. Vinay Limbu	
	GEO-A-CC-3-06-P (Hydrology and Oceanography Lab) 30 Marks : 2 Credits	1	Construction and interpretation of rating curves	Sept	Gouri Chakraborty	
		2	Construction and interpretation of hydrographs and unit hydrographs	Sept	Gouri Chakraborty	
		3	Construction and interpretation of monthly rainfall dispersion diagram (Quartile method), Climatic water budget and Ergograph	Oct, Nov	Gouri Chakraborty	
		4	Construction of Thiessen polygon from precipitation data	Sept	Bablu Samanta	
	Semester III (HONOURS)	GEO-A-CC-3-07-TH (Statistical Methods in Geography) 60 Marks : 4 Credits	I	Importance and significance of statistics in Geography	Sept	Bablu Samanta
			I	Discrete and continuous data, population and samples, scales of measurement (Nominal, ordinal, interval and ratio)	Sept	Bablu Samanta
			I	Sources of geographical data for statistical analysis	Aug	Dr. Suvasree Dutta (Dasgupta)
			I	Collection of data and preparation of statistical tables	Sept	Dr. Suvasree Dutta (Dasgupta)
			I	Sampling: Need, types, significance and methods of random sampling	Sept	Dr. Suvasree Dutta (Dasgupta)
I			Theoretical distribution: Frequency, cumulative frequency, normal and probability	Sept	Dr. Suvasree Dutta (Dasgupta)	
II			Central Tendency: Mean, Median, Mode, Partition Values	Dec	Gouri Chakraborty	
II			Measures of dispersion range, mean deviation, standard deviation, and co-efficient of variation	Dec	Gouri Chakraborty	
II			Association and correlation: Product moment correlation and rank correlation	Sept	Bablu Samanta	
II			Regression: Linear and non-linear	Sept, Nov	Bablu Samanta	
II			Time Series Analysis: Moving Average	Dec	Gouri Chakraborty	
II			Hypothesis testing: Chi-square test and T-test	Nov, Dec	Bablu Samanta	
GEO-A-CC-3-07-P (Statistical Methods in Geography Lab) 30 Marks : 2 Credits		1	Construction of data matrix with each row representing an areal unit and corresponding columns of relevant attributes	Nov	Gouri Chakraborty	
		2	Based on the above, a frequency table, measures of central tendency, and dispersion would be computed and interpreted using histogram and frequency curve	Dec	Gouri Chakraborty	
	3	From the data matrix, a sample set (20%) would be drawn using random, systematic, and stratified methods of sampling and the samples would be located on a map with an explanation of the methods used	Sept	Bablu Samanta		
	4	Based on the sample set and using two relevant attributes, a scatter diagram and linear regression line would be plotted and residual from regression would be mapped with a short interpretation	Sept, Nov	Bablu Samanta		
	GEO-A-SEC-A-3-02-TH (Tourism management) 90 Marks: 2 Credits	1	Scope and nature of tourism: Concepts and issues, tourism, recreation and leisure inter-relationships; Factors influencing tourism, Types of tourism:	Nov	Amrita Kayal	

			Ecotourism, cultural tourism, adventure tourism, medical tourism, pilgrimage, international, national			
		2	Use of information on factors to plan destination marketing,; tourism products, Niche tourism planning	Dec	Amrita Kayal	
		3	Tourism impact assessment, Sustainable tourism , Information technology and tourism, Tour operations planning and guiding	Nov	Puspendu Dhali	
		4	Increasing global tourism; Tourism in India: Tourism infrastructure, access, planning for different budgets for case study sites of Western Himalayas, Goa, Chilka/Vembanad, Jaipur	Dec	Puspendu Dhali	
Semester	Paper	Unit	Topic	JULY – SEPTEMBER/ OCTOBER- DECEMBER	Faculty Name	
Semester V (Honours)	GEOA-A-CC-5-11-TH (Research Methodology and Fieldwork) 60 Marks: 4 Credits	I	Research in Geography: Meaning, types and significance	July	Dr. Suvasree Dutta (Dasgupta)	
		I	Literature Review and formulation of research design	July	Dr. Suvasree Dutta (Dasgupta)	
		I	Defining Research Problem, Objectives and Hypothesis.	July, Sept	Dr. Vinay Limbu	
		I	Research Materials and Methods.	July, Sept	Dr. Vinay Limbu	
		I	Techniques of Writing Scientific Reports: Preparing notes, references, bibliography, abstract and keywords	July, Sept	Dr. Vinay Limbu	
		I	Plagiarism : Classification & Prevention	July, Sept	Dr. Vinay Limbu	
		II	Fieldwork in Geographical studies: Role and significance. Selection of study area and objectives. Pre-field academic preparation. Ethics of fieldwork	July, Sept	Puspendu Dhali	
		II	Field techniques and tools: Observation (participant, non-participant), questionnaires (open, closed, structured , non-structured), Interview	Sept, Nov	Puspendu Dhali	
		II	Field techniques and tools: Landscape survey using transects and quadrants, constructing a sketch, photo and video recording	July, Sept	Amrita Kayal	
		II	Positioning and collection of samples. Preparation of inventory from field data.	Sept	Amrita Kayal	
		II	Post fields tabulation, processing and analysis of quantitative and qualitative data	Nov	Puspendu Dhali	
		II	Fieldwork: logistics and handling of emergencies	Sept	Amrita Kayal	
			GEOA-A-CC-5-11-P (Research Methodology and Fieldwork Lab) 30 Marks: 2 Credits		Preparation of Field Report	July-Nov

Semester V (Honours)	GEOA-A-CC-5-12-TH (Remote Sensing, GIS and GNSS) 60 Marks: 4 Credits	I	Principles of Remote Sensing (RS): Types of RS satellites and sensors	Aug	Bablu Samanta
		I	Sensor resolutions and their applications with reference to IRS and Landsat missions	Aug	Bablu Samanta
		I	Image referencing schemes and acquisition procedure of free geospatial data from NRSC / Bhuvan and USGS	Aug	Bablu Samanta
		I	Preparation of False Colour Composites from IRS LISS-3 and Landsat TM / OLI data.	Aug, Sept	Bablu Samanta
		I	Principles of image interpretation. Preparation of inventories of landuse land cover (LULC) features from satellite images	Sept	Bablu Samanta
		I	Acquisition and utilisation of free Digital Elevation Model data: CartoDEM, SRTM and ALOS	Sept	Bablu Samanta
		II	GIS Data Structure Types: Spatial and Non-spatial, Raster and Vector	Aug	Gouri Chakraborty
		II	Principles Of Preparing Attribute Tables, Data Manipulation, and Overlay Analysis	Aug	Gouri Chakraborty
		II	Principles and Significance of Buffer Preparation	Sept	Gouri Chakraborty
		II	Principles And Significance of Overlay Analysis	Sept	Gouri Chakraborty
		III	Principles of GNSS positioning and waypoint collection	Sept	Bablu Samanta
		III	Principles of transferring of GNSS waypoints to GIS. Area and length calculations from GNSS data	Sept	Bablu Samanta
		GEOA-A-CC-5-12-P (Remote Sensing, GIS and GNSS Lab) 30 Marks: 2 Credits	1	Image georeferencing and enhancement. Preparation of reflectance libraries of LULC features across different image bands of IRS L3 or Landsat OLI data	Sept, Nov
	2		Supervised image classification, class editing, and post-classification analysis	Sept, Nov	Bablu Samanta
	3		Digitization Of Features and Administrative Boundaries. Data Attachment, Overlay, and Preparation of Annotated Thematic Maps	Nov, Dec	Gouri Chakraborty
	4		Waypoint collection from GNSS receivers and exporting to GIS database	Sept, Nov	Bablu Samanta
	GEOA-A-DSE-A-5-02-TH (Climate Change: Vulnerability and Adaptations) 60 Marks: 4 Credits	1	The science of climate change: origin, scope and trends	Aug	Kakali Das
		2	Climate change with reference to the geological time scale	Sept	Kakali Das
		3	Evidences and factors of climate change: The nature-man dichotomy	Nov	Amrita Kayal
		4	Greenhouse gases and global warming	Nov	Dr. Suvasree Dutta (Dasgupta)
		5	Electromagnetic spectrum, atmospheric window, heat balance of the earth	Nov	Bablu Samanta
		6	Global climatic assessment: IPCC reports	Dec	Amrita Kayal
		7	Climate Change and vulnerability: Physical, economic and social	Nov	Bablu Samanta
		8	Impact of climate change: Agriculture and water; flora and fauna, human health and morbidity	Sept, Nov	Puspendu Dhali
		9	Global initiatives to climate change mitigation: Kyoto Protocol, carbon trading, clean development mechanism, COP, climate fund	Nov	Puspendu Dhali
		10	Climate Change Vulnerability assessment and strategies with particular reference to South Asia	Nov, Dec	Dr. Vinay Limbu
		11	National Action Plan on climate change	Sep	Kakali Das
		12	Role of Urban Local bodies, panchayats, and educational institutions on climate change mitigation: Awareness and	Nov, Dec	Dr. Vinay Limbu

			action programmes		
	GEOA-A-DSE-A-5-02-P (Climate Change: Vulnerability and Adaptations Lab) 30 Marks: 2 Credits	1	Analysis of trends of temperatures (maximum and minimum of about three decades) of any IMD station	Sept	Dr. Suvasree Dutta (Dasgupta)
		2	Comparative analysis of seasonal variability of rainfall on the basis of monthly data of any two IMD stations	Nov	Dr. Suvasree Dutta (Dasgupta)
		3	Annual rainfall variability of about three decades for any two representative climatic regions of India	Nov	Amrita Kayal
		4	Preparation of an Inventory of extreme climatic events and mitigation measure of any climatic region/country of South Asia for a period of one decade on the basis of secondary information	Nov, Dec	Dr. Vinay Limbu
	GEOA-A-DSE-B-5-05-TH (Cultural and Settlement Geography) 60 Marks: 4 Credits	I	Definition scope and content of cultural geography	July	Amrita Kayal
		I	Development of cultural geography in relation to allied disciplines	Sept	Amrita Kayal
		I	Cultural Hearth and realm, cultural diffusion, diffusion of major religions and languages.	July, Sept	Dr. Vinay Limbu
		I	Cultural segregation and diversity, culture, technology and development.	July, Sept	Dr. Vinay Limbu
		I	Race and racial groups of the world	Nov	Amrita Kayal
		I	Cultural Regions of India	Nov	Amrita Kayal
		II	Rural Settlement: Definition, nature and characteristics	Nov	Dr. Suvasree Dutta (Dasgupta)
		II	Rural Settlement: Site, situation and morphology	Nov	Dr. Suvasree Dutta (Dasgupta)
		II	Rural house types with reference to India, social segregation in rural areas. Census of India categories of rural settlements	Nov	BABLU SAMANTA
		II	Urban Settlement: Census of India definition and categories	Aug, Sept	Puspendu Dhali
		II	Urban morphology: Models of Burgess, Hoyt, Harris and Ullman	Aug	Kakali Das
		II	City region & conurbation. Functional classification of cities: Schemes of Harris, Nelson and McKenzie	Sept	Kakali Das
	GEOA-A-DSE-B-5-05-P (Cultural and Settlement Geography Lab) 30 Marks: 2 Credits	1	Mapping language distribution of India	Nov	Amrita Kayal
		2	CD block wise housing distribution in any district of west Bengal by using Proportional Square.	Nov	Dr. Vinay Limbu
		3	Identification of rural settlement types from Survey of India 1: 50,000 topographical maps	Nov	Dr. Suvasree Dutta (Dasgupta)
		4	Social area analysis of a city (Shevky and Bell)	Sept	Amrita Kayal
Semester I (GENERAL)	GEO-G-CC-1-01-TH (Physical Geography) 60 Marks : 4 Credits	I	Earth's interior with special reference to seismology	Nov	Amrita Kayal
		I	Plate Tectonic Theory as a unified theory of global tectonics, Formation of major relief features of the ocean floor and continents according to Plate Tectonics	Nov, Dec	Dr. Vinay Limbu
		I	Folds and Faults: Classification and surface expressions	Nov	Amrita Kayal
		II	Degradational Processes : Weathering Mass Wasting and resultant Landforms	Sept	Vinay Limbu
		II	Principal geomorphic agents. Classification and evolution of fluvial, coastal, Aeolian and glacial landforms	Nov, Dec	Amrita Kayal
		II	Basic models of slope evolution: Decline, replacement, and retreat in geomorphology. Systems approach and its significance in geomorphology	Dec	Amrita Kayal
		III	Global Hydrological Cycle: Its Physical & Biological Role	Sept	Gouri Chakraborty

		III	Runoff: Controlling Factors, Concept of ecological flow	Sept	Gouri Chakraborty
		III	Drainage Basin as A Hydrological Unit. Principles of Watershed	Nov	Gouri Chakraborty
		IV	Physical and chemical properties of ocean water. Distribution and determinants of temperature and salinity	Nov	Puspendu Dhali
		IV	Ocean circulation, wave and tide	Dec	Puspendu Dhali
		IV	Marine resource: Classification and sustainable utilisation	Nov	Puspendu Dhali
Semester I (GENERAL)	GEO-G-CC-1-01-TH (Physical Geography) 60 Marks : 4 Credits	1	Megascopeic Identification of mineral samples	Sept	Dr. Suvasree Dutta (Dasgupta)
		2	Megascopeic identification of rock samples	Nov	Dr. Suvasree Dutta (Dasgupta)
		3	Extraction of physiographic information from Survey of India 1:50k topographical maps of plateau region: Construction and interpretation of relief profiles (superimposed, projected and composite), Construction and interpretation of relative relief map (c. 5'x5')	Sept, Nov	BABLU SAMANTA
		4	Extraction of drainage information from Survey of India 1:50k topographical maps of plateau region: Extraction and interpretation of channel features and drainage patterns, Construction of channel profiles	Sept, Nov	Kakali Das
Semester III (GENERAL)	GEO-G-CC-3-03-TH (Human Geography) 60 Marks : 4 Credits	I	Sectors Of Economy: Primary, Secondary, Tertiary and Quaternary. Factors affecting location of economic activities	Aug	Gouri Chakraborty
		I	Location of economic activities. Theories of Von Thunen, Losch and Weber	Sept	Puspendu Dhali
		I	Location of industries with special reference to India: Cotton, Iron and steel	Nov	Puspendu Dhali
		I	Globalisation and integration of world economies	Nov, Dec	Puspendu Dhali
		II	Human society: Structure, functions, social systems. Population and migration: Overview, causes and effects	Aug, Sept	Kakali Das
		II	Types and characteristics of social organisations: Primitive, hunting-gathering, agrarian, industrial	Sept	Kakali Das
		II	Race, language & religion: Origin, characteristics and spatial variations	Nov	Kakali Das
		II	Social issues: Diversity, conflict and transformation	Nov, Dec	Kakali Das
		III	Carl Sauer: Cultural landscape and its elements	Nov, Dec	Amrita Kayal
		III	Rural and urban settlements: Differentiation in cultural landscapes	Dec	Amrita Kayal
		III	Cultural regions and cultural realms	Dec	Amrita Kayal
		III	Diffusion of culture and innovations	Dec	Amrita Kayal
	GEO-G-CC-3-03-P (Human Geography Lab) 30 Marks : 2 Credits	1	State wise variation in Occupational Structure by Proportional Divided Circle.	July, Sept, Nov	Dr. Vinay Limbu
		2	Time series analysis of industrial production using any two manufactured goods from India	Sept	Bablu Samanta
		3	Measuring arithmetic growth rate of population comparing two datasets	Nov, Dec	Puspendu Dhali
		4	Nearest neighbour Analysis: Rural example from Survey of India 1:50,000 topographical maps	Aug	Dr. Suvasree Dutta

					(Dasgupta)
Semester V (General)	GEO-G-DSE-A-5-01-TH (Regional Development) 60 Marks : 4 Credits	1	Delineation of region. Types and need of regional planning	Sept	Dr. Suvasree Dutta (Dasgupta)
		2	Choice of a region for planning; characteristics of an ideal planning region; delineation of planning region	Nov	Amrita Kayal
		3	Regionalization of India for planning (agro-ecological zones)	Nov	Amrita Kayal
		4	Strategies/models for regional planning: growth pole model of Perroux	Nov	Dr. Suvasree Dutta (Dasgupta)
		5	Growth Centre Model in Indian Context. Concept of Village cluster	Aug	Gouri Chakraborty
		6	Problem Regions and Regional Planning. Backward Regions and Regional Plans: Special Area Development Plans in India. Damodar Valley Corporation: Success and Failure	Aug, Sept, Nov	Gouri Chakraborty
		7	Changing concept of development and under development: Efficiency-equity debate	Nov	Puspendu Dhali
		8	Indicators of Development: Economic, Demographic and Environmental. Concept of Human development	Sept, Nov	Dr. Vinay Limbu
		9	Regional Development in India, Regional Inequality, disparity and Diversity	Sept, Nov	Dr. Vinay Limbu
		10	Development and regional disparities in India since Independence: Disparities in Agricultural development	Aug	Kakali Das
		11	Development and regional disparities in India since Independence: Disparities in Industrial development	Sept	Kakali Das
		12	Development and regional disparities in India since independence: Disparities in human resource development in terms of education and health	Sept, Nov	Bablu Samanta
	GEO-G-DSE-A-5-01-P (Regional Development Lab) 30 Marks : 2 Credits	1	Delineation of regions according to given criteria using Weaver's method	Nov	Bablu Samanta
		2	Determination of sphere of influence by gravity model	Sept	Amrita Kayal
		3	Measurement of inequality by Lorenz curve and location quotient	Dec	Dr. Suvasree Dutta (Dasgupta)
		4	Preparation of Z-score and composite index from suitable data	Nov	Amrita Kayal
	GEO-G-SEC-A-5-02-TH (Forest and wildlife Management) 90 Marks: 2 Credits	1	Forest and wildlife management: Importance and strategies. Role and significance of stakeholders. Tangible and intangible benefits of forest and wildlife management	Nov	Puspendu Dhali
		2	Legal framework of forest and wildlife protection in India: The Indian Forest Act 1927, Forest Conservation Act 1980, Wildlife Protection Act 1972, Biodiversity Act 2002	Dec	Puspendu Dhali
		3	Forests as common property resources. Forest rights: Tribals and forests. Gender dimension of forest management. Management of poaching and illegal logging.	Sept, Nov	Amrita Kayal
		4	Principles of community participation and joint forest management. Causes and management of human-wildlife conflicts with special reference to Jangal Mahal	Dec	Amrita Kayal

Lesson Plan for CBCS Syllabus

Subject: Geography

Even Semester

Semester	Paper	Unit	Topic	JANUARY- JUNE	Faculty Name
Semester II (HONOURS)	GEO-A-CC-2- 03-TH (Human Geography) 60 Marks : 4 Credits	I	Nature,scope & recent trends. Elements of human Geography	Jan	Kakali Das
		I	Approaches to human Geography: Resource, location, landscape, environment	Jan, Feb	Kakali Das
		I	Concept and classification of Race, Ethnicity	Feb	Kakali Das
		I	Space, society and cultural regions (language and religion)	March	Kakali Das
		II	Evolution of human societies: Hunting and food gathering, pastoral nomadism, subsistence farming and industrial society	Jan	Puspendu Dhali
		II	Human Adaption to Environment : Case studies of Eskimo , Masai , and Maori	March, April	Dr. Vinay Limbu
		II	Population Growth and Distribution, Composition, Demographic Transition Theory	March, April	Dr. Vinay Limbu
		II	Population Resource Regions (Ackerman)	May	Dr. Vinay Limbu
		II	Development–environment conflict	March	Amrita Kayal
		II	Types and Patterns of Rural Settlement	Jan	Dr. Suvasree Dutta (Dasgupta)
		II	Rural House types in India	Jan	Dr. Suvasree Dutta (Dasgupta)
		II	Morphology and hierarchy of urban settlements	Feb	Dr. Suvasree Dutta (Dasgupta)
	GEO-A-CC-2- 03-P (Human Geography Lab) 30 Marks : 2 Credits	1	Spatial Variation in continent-or country-level religious composition by divided proportional circle	March	Dr. Vinay Limbu
		2	Measuring arithmetic growth rate of population comparing two decadal datasets	Feb	Dr. Suvasree Dutta (Dasgupta)
		3	Types of Age-Sex Pyramids (Progressive, Regressive, Intermediate, Stationary): Graphical representation and analysis	April,May	Dr. Vinay Limbu
		4	Nearest Neighbour Analysis from Survey of India 1:50,000 topographical maps of plain region (c. 5'X5')	March	Dr. Suvasree Dutta (Dasgupta)

Semester II (HONOURS)	GEO-A-CC-02-04-TH (Thematic Mapping and Surveying) 60 Marks : 4 Credits	1	Concepts Of Rounding, Scientific Notation. Logarithm And Anti-Logarithm. Natural And Log Scales	Feb	BABLU SAMANTA
		2	Concept Of Diagrammatic Representation Of Data	Feb	Gouri Chakraborty
		3	Preparation & Interpretation Of Geological Maps	Feb	Kakali Das
		4	Preparation And Interpretation Of Weather Maps	Feb	Gouri Chakraborty
		5	Preparation & Interpretation Of Land Use & Land Cover Maps	Feb	Kakali Das
		6	Preparation And Interpretation Of Socio-Economic Maps	March	Amrita Kayal
		7	Principal National Agencies Producing Thematic Maps In India: NATMO, GSI, NBSSLUP, NHO, And NRSC / Bhuvan	Feb	Bablu Samanta
		8	Basic Concepts Of Surveying And Survey Equipment: Prismatic Compass	March	Gouri Chakraborty
		9	Basic Concept Of Surveying And Survey Equipment: Dumpy Level	Feb, March	Puspendu Dhali
		10	Basic Concepts Of Surveying And Survey Equipment: Theodolite	March	Bablu Samanta
		11	Basic Concepts Of Surveying And Survey Equipment: Abney Level	March	Bablu Samanta
		12	Basic Concepts Of Surveying And Survey Equipment: Laser Distance Measurer	March	Bablu Samanta
Semester II (HONOURS)	GEO-A-CC-02-04-P (Thematic Mapping and Surveying Lab) 30 Marks : 2 Credits	1	Traverse Survey using Prismatic Compass	March, April	Gouri Chakraborty
		2	Profile Survey Using Dumpy Level	March	Puspendu Dhali
		3	Height determination of base accessible and inaccessible (same vertical plane method) objects by theodolite	April, May	BABLU SAMANTA
		4	Interpretation of geological maps with uniclinal structure, folds, unconformity, and intrusions	Feb, March	Kakali Das
Semester IV (HONOURS)	GEO-A-CC-4-08-TH (Economic Geography) 60 Marks : 4 Credits	I	Meaning And Approaches To Economic Geography	Feb	Gouri Chakraborty
		I	Concept In Economic Geography - Goods And Services Production, Exchange And Consumption	March	Gouri Chakraborty
		I	Concept of economic man. Theories of choices	Feb	Amrita Kayal
		I	Economic distance and transport costs	Feb	Amrita Kayal
		II	Concept and classification of Economic Activities	Feb	Dr. Vinay Limbu
		II	Factors affecting location of Economic Activity with special references to agriculture (Von Thunen) and industry (Weber)	Feb, March	Dr. Vinay Limbu
		II	Primary activities : Agriculture, Forestry, Fishing and Mining	Feb, March	Dr. Vinay Limbu
		II	Secondary Activities : Classification of Manufacturing ,concept of manufacturing regions Special Economic Zone and Technology Parks	April, May	Dr. Vinay Limbu

		II	Tertiary activities: Transport, trade and services	Feb	Bablu Samanta
		II	Transnational sea-routes, railways and highways with reference to India	Feb, Mar, April	Puspendu Dhali
		II	International trade and economic blocs	Feb	Bablu Samanta
		II	WTO and BRICS: Evolution, structure and functions	Feb	Bablu Samanta
Semester IV (Honours)	GEO-A-CC-4-08-P (Economic Geography) 30 Marks : 2 Credits	1	Choropleth Mapping Of Statewise Variation In Gdp	March	Gouri Chakraborty
		2	State Wise Variation In Occupational Structure By Proportional Divided Circle	Feb	Dr, Vinay Limbu
		3	Time Series Analysis Of Industrial Production- India And West Bengal	March	Gouri Chakraborty
		4	Transport Network Analysis By Detour Index And Shortest Path Analysis	March	Puspendu Dhali
	GEO-A-CC-4-09-TH (Regional Planning and Development) 60 Marks : 4 Credits	I	Regions: Concept, types and delineation	Feb	Dr. Suvasree Dutta (Dasgupta)
		I	Regional Planning:Types, principles, objectives, tools and techniques	Feb	Dr. Suvasree Dutta (Dasgupta)
		I	Regional Planning And Multi-Level Planning In India	March	Amrita Kayal
		I	Concept Of Metropolitan Area And Urban Agglomeration	March	Dr. Suvasree Dutta (Dasgupta)
		II	Concept Of Growth And Development, Growth Vs Development	April	Gouri Chakraborty
		II	Indicators Of Development: Economic, Demographic And Environmental	April	Gouri Chakraborty
		II	Human development: Concept and measurement	Jan	Puspendu Dhali
		II	Theories and models for regional development: Cumulative Causation (Myrdal)	March	Dr. Suvasree Dutta (Dasgupta)
		II	Models and theories in regional development: Stages of development (Rostow), Growth Pole model (Perroux)	March	Dr. Suvasree Dutta (Dasgupta)
		II	Underdevelopment : Concept and causes	Feb	Puspendu Dhali
		II	Regional development in India: Disparity and diversity	April	Amrita Kayal
		II	Need and measures for balanced development in India	April	Amrita Kayal
	GEO-A-CC-4-09-P (Regional Planning and Development Lab) 30 Marks : 2 Credits	1	Delineation of formal regions by weighted index method	March	Bablu Samanta
		2	Delineation of functional regions by breaking point analysis	March	Bablu Samanta
		3	Measurement of inequality by location quotient	April	Dr. Suvasree Dutta (Dasgupta)

		4	Measuring regional disparity by Sopher index	April	Dr. Suvasree Dutta (Dasgupta)
Semester IV (HONOURS)	GEO-A-CC-4-10-TH (Soil and Bio-geography) 60 Marks : 4 Credits	I	Factors of Soil Formation	March	Gouri Chakraborty
		I	Definition And Significance of Soil Properties: Texture, Structure, and Moisture	April	Gouri Chakraborty
		I	Definition and significance of soil properties: pH, organic matter and NPK	April	Amrita Kayal
		I	Soil profile. Origin & profile characteristics of podsol, lateritic and chernozem soils.	Jan, Feb	Kakali Das
		I	Soil erosion and degradation: factors, processes and management measures. Humans as active agents of soil transformation	Feb, Mar	Kakali Das
		I	Principles of soil classification: Genetic and USDA. Concept of land capability and its classification	Apr	Amrita Kayal
		II	Concepts of biosphere, ecosystem, biome, ecotone, community and ecology	March	Dr. Suvasree Dutta (Dasgupta)
		II	Concepts of trophic structure, food chain and food web. Energy flow in ecosystems	March	Bablu Samanta
		II	Classification of world biomes (Whittaker). Geographical extent and characteristics of tropical rain forest, savanna, hot desert, taiga and coral reef biomes	March	Bablu Samanta
		II	Bio-geochemical cycles with special reference to carbon dioxide and nitrogen	April	Bablu Samanta
		II	Deforestation Causes, Consequences and Management	March, April	Dr. Vinay Limbu
		II	Biodiversity Definition, types, Threats & Conservation measures	March, April	Dr. Vinay Limbu
	GEO-A-CC-4-10-P (Soil and Bio-geography Lab) 30 Marks : 2 Credits	1	Determination of soil reaction (PH) and salinity using field kit	Feb, March	Kakali Das
		2	Determination of soil type by ternary diagram textural plotting	March	Dr. Suvasree Dutta (Dasgupta)
		3	Plant species diversity determination by matrix method	MAY	Amrita Kayal
		4	Time series analysis of biogeography data	April	Bablu Samanta
	GEO-A-SEC-B-4-04-TH (Sustainable Development) 90 Marks: 2 Credits	1	Sustainable development: Concept, historical background, components and limitations	Feb	Dr. Suvasree Dutta (Dasgupta)
		2	Challenges of sustainable development: Determinants, Linkage among sustainable development, environment and poverty	March, April	Amrita Kayal
		3	Determinants of Global Environmental Issues : population, income distribution urbanization, Deforestation and depletion/contamination Water Resources	April, May	Dr. Vinay Limbu
		4	Global goals for Sustainable Development : Domain ,Conflict, Crisis and Compromise	April, May	Dr. Vinay Limbu

Semester VI (Honours)	GEOA-A-CC-6-13-TH (Evolution of Geographical Thought) 60 Marks: 4 Credits	I	Development of Pre-modern geography: Contributions of Greek, Chinese and Indian geographers.	Feb, March	Dr. Vinay Limbu
		I	Impact of Dark Age in geography and Arab contributions	Feb, March	Dr. Vinay Limbu
		I	Geography during the age of 'Discovery' and 'Exploration' (contribution of Portuguese voyages, Columbus , Vasco da Gama, Magellan, Thomas Cook)	March, April	Dr. Vinay Limbu
		I	Transition from Cosmography to Scientific geography, (contribution of Bernard Varenius and Immanuel Kant) Dualism and Dichotomies, (General vs. Particular, Physical vs Human, Regional vs. Systematic, Determinism Vs Possibilism, Ideographic vs Nomothetic)	March, April, May	Dr. Vinay Limbu
		II	Evolution of Geographical thought in Germany France , Britain and United states of America Changing Concept of Space with special reference to Harvey.	April, May	Dr. Vinay Limbu
		II	Contributions of Humboldt and Ritter	March	Puspendu Dhali
		II	Contributions of Richthofen, Hartshorne–Schaeffer, Ratzel, La Blaché	March	BABLU SAMANTA
		II	Trends of geography in the post World War-II period: Quantitative revolution, systems approach	March, April	Amrita Kayal
		II	Structuralism and historical materialism	March	Dr. Suvasree Dutta (Dasgupta)
		II	Changing concept of space with special reference to Harvey	April	Dr. Vinay Limbu
		II	Evolution of critical Geography: Behavioural, Humanistic and radical	Feb	Puspendu Dhali
		II	Towards post modernism: Geography in the 21st Century	May	Amrita Kayal
	GEOA-A-CC-6-13-P (Evolution of Geographical Thought Lab) 30 Marks: 2 Credits	1	Changing perceptions of maps of the world (Ptolemy, Ibn Batuta, Mercator)	Feb, March, April	Dr. Vinay Limbu
		2	Mapping Voyages Columbus, Vasco-da-gama, Magellan, Thomas Cook	Feb, March, April	Dr. Vinay Limbu
		3	Group Presentation of five to ten students on any selected school of geographical thought	March, April, May	Dr. Vinay Limbu

Semester VI (Honours)	GEOA-A-CC-6-14-TH (Hazard Management) 60 Marks: 4 Credits	I	Classification Of Hazard And Disaster. Hazard Continuum	Feb	Gouri Chakraborty
		I	Approaches To Hazard Study: Risk Perception And Vulnerability Assessment, Hazard Paradigms	March	Gouri Chakraborty
		I	Responses To Hazards; Preparedness, Trauma And Aftermath, Resilience, Capacity Building	April	Gouri Chakraborty
		I	Hazard mapping: Data and geospatial techniques	March, April	Dr. Suvasree Dutta (Dasgupta)
		II	Earthquake: factors, vulnerability, consequences and management.	Jan	Kakali Das
		II	Landslide: factors, vulnerability, consequences and management.	Jan	Kakali Das
		II	Land subsidence: factors, vulnerability, consequences and management.	Jan, Feb	Kakali Das
		II	Tropical cyclone: factors, vulnerability, consequences and management.	Feb	Kakali Das
		II	Flood: factors, vulnerability, consequences and management.	Feb, March	Kakali Das
		II	Riverbank erosion: Factors, vulnerability, consequences and management	March	Puspendu Dhali
		II	Fire hazard: Factors, vulnerability, consequences, and management	April	Amrita Koyal
		II	Biohazard, Classification, Vulnerability, Consequences and Management	April	Dr. Vinay Limbu
	GEOA-A-CC-6-14-P (Hazard Management Lab) 30 Marks: 2 Credits	1	A Group Project Report on Fire	March, April, May	Dr. Suvasree Dutta (Dasgupta) Amrita Koyal
		2	A Group Project Report on Environmental Pollution	March, April, May	Gouri Chakraborty Kakali Das
		3	A Group Project Report on Biohazard	March, April, May	Puspendu Dhali Bablu Samanta
	GEOA-A-DSE-A-6-04-TH (Resource Geography) 60 Marks: 4 Credits	1	Natural resources : Concept & Classification	Feb	Dr. Vinay Limbu
		2	Approaches to resource utilization: Utilitarian, conservational, community based adaptive.	April, May	Dr. Vinay Limbu
		3	Significance of resources: Backbone of economic growth and development	May	Gouri Chakraborty
		4	Pressure on resources: Appraisal and conservation of natural resources	April	Puspendu Dhali
		5	Problems of resource depletion: Global scenario (Forest, water, fossil fuels)	May	Puspendu Dhali
		6	Sustainable resource development	April	Amrita Koyal
		7	Distribution, utilization, problems & management of metallic mineral resources: Iron ore, bauxite, copper	Feb	Kakali Das
		8	Distribution, utilization, problem & management of non-metallic mineral resource: limestone, mica, gypsum	March	Kakali Das
9		Distribution, utilization, problem & management of energy resources: Conventional and non-conventional	Jan	Dr. Suvasree Dutta (Dasgupta)	
10		Contemporary energy crisis and future scenario	Feb	Dr. Suvasree Dutta (Dasgupta)	

		11	Politics of power resources	Feb	Dr. Suvasree Dutta (Dasgupta)
		12	Limits To Growth And Sustainable Use Of Resources. Concept Of Resource Sharing	April	Bablu Samanta
	GEOA-A-DSE-A-6-04-P (Resource Geography) 30 Marks: 2 Credits	1	Mapping and area estimate of changes in forest or vegetation cover from maps and/or satellite images	Feb	Bablu Samanta
		2	Mapping and number estimate of changes in water bodies from maps and/or satellite images	Feb	Bablu Samanta
		3	Decadal changes in state-wise production of coal and iron ore	March	Puspendu Dhali
		4	Computing Human Development Index: Comparative decadal change of top five Indian states	May	Amrita Kayal
	GEOA-A-DSE-B-6-08-TH (Geography of India) 60 Marks: 4 Credits	I	Physiographic divisions with reference to tectonic provinces	March	BABLU SAMANTA
I		Climate, soil and vegetation: Classification and interrelation	March, April	Amrita Kayal	
I		Population: distribution, growth, structure & policy	March	Kakali Das	
I		Tribes of India with special reference to Gaddi, Toda, Santal and Jarwa	March	Dr. Suvasree Dutta (Dasgupta)	
I		Agricultural regions. Green revolution and its consequences	March	Dr. Suvasree Dutta (Dasgupta)	
I		Mineral & power resources : distribution and utilization of iron ore, coal, petroleum, natural gas	March	Kakali Das	
I		Industrial development: Automobile and information technology	March	Puspendu Dhali	
I		Regionalisation of India: Physiographic (R.L. Singh) and economic (P. Sengupta)	March	BABLU SAMANTA	
II		Physical Perspective: Physiography Divisions, Forest And Water Resources	May	Puspendu Dhali	
II		Resources: Agriculture, Mining And Industry	April	Dr. Suvasree Dutta (Dasgupta)	
II		Population : Growth, Distribution, Human Development	April	Gouri Chakraborty	
II		Regional Issues: Darjeeling Hills and Sundarban.	April, May	Dr. Vinay Limbu	
GEOA-A-DSE-B-6-08-TH (Geography of India) 30 Marks: 2 Credits		1	Monthly Temperature And Rainfall Graphs Of 5 Stations From Different Physiographic Regions Of India	April	Gouri Chakraborty
		2	Crop combination: Comparison of any two contrasting districts from West Bengal	April	Dr. Suvasree Dutta (Dasgupta)
		3	Annual trends of production: Mineral resources and manufacturing goods over two decades	April	Puspendu Dhali
		4	Composite Index: Comparison of developed and backward states of India	April	Amrita Kayal

Semester II (GENERAL)	GEO-G-CC-2-02-TH (Environmental Geography) 60 Marks : 4 Credits	I	Insolation and heat budget; Horizontal and vertical distribution of atmospheric temperature and pressure	Jan	Puspendu Dhali
		I	Overview of planetary wind system. Indian monsoon: Mechanism and controls	Feb	Puspendu Dhali
		I	Atmospheric disturbance: Tropical and temperate cyclone. Thunderstorms	Feb, March	Puspendu Dhali
		I	Overview of global climate change: Greenhouse effect. Ozone depletion	March, April	Puspendu Dhali
		I	Scheme of world climatic classification by Köppen	Feb	BABLU SAMANTA

		II	Factors of soil formation	Jan	Kakali Das	
		II	Soil profile development under different climate conditions: Laterite, podsol and chernozem soil	Feb	Kakali Das	
		II	Physical and chemical properties of soils: texture, structure, PH, salinity, and NPK status	March	Kakali Das	
		II	USDA classification of soils. Soil erosion and its management	March	Kakali Das	
		III	Ecosystem and Biomes. Distribution and characteristics of tropical rainforest; Savannah and hot desert biomes.	April, May	Amrita Kayal	
		III	Plant types, occurrence and ecological adaptations: Halophytes, xerophytes, hydrophytes and mesophytes	April, May	Amrita Kayal	
		III	Biodiversity: Types, threats and management with special reference to India.	May	Amrita Kayal	
	GEO-G-CC-2-02-P (Environmental Geography Lab) 30 Marks : 2 Credits	1	Interpretation Of Daily Weather Map Of India(Any One): Pre-Monsoon Or Monsoon Or Post-Monsoon	Feb, March, April	Gouri Chakraborty	
		2	Construction and interpretation of Hythergraph, Climograph (G. Taylor) and windrose (seasonal)	April, May	Dr. Vinay Limbu	
		3	Determination of soil type by ternary diagram textural plotting	March	Dr. Suvasree Dutta (Dasgupta)	
		4	Preparation of peoples' biodiversity register	March, April	Puspendu Dhali	
	Semester IV (GENERAL)	GEO-G-CC-4-04-TH (Cartography) 60 Marks : 4 Credits	I	Maps: Classification and types. Scales: Types, significance, and applications	Feb	Bablu Samanta
			I	Coordinate systems: Polar and rectangular. Bearing: Magnetic and true, whole-circle and reduced	Feb	Bablu Samanta
			I	Map Projections, Classifications, Properties And Uses Concept And Significance Of Utm Projection	Feb, March, April	Gouri Chakraborty
II			Survey of India topographical maps: Reference scheme of old series map and Information on the margin of maps	Feb	Amrita Kayal	
II			Representation of data by Dots & Proportional Circle	Feb	Kakali Das	
II			Representation of data by isopleth & choropleth	March	Kakali Das	
II			Principal national agencies producing thematic maps in India: GSI, NATMO, NBSLUP, NHO, and NRSC. Acquaintance with Bhuvan platform.	Feb, March	Amrita Kayal	
III			Basics of remote sensing: Types of satellites, sensors, band and resolutions with special reference to the ISRO missions	Feb, March	Puspendu Dhali	
III			Principles of preparing standard FCCs and classified to raster images	March, April	Puspendu Dhali	
III			Principles of Geographical Information System: Concept of vector types, attribute table, buffers and overlay analysis	April, May	Puspendu Dhali	
IV			Basic concepts of surveying and survey equipment: Prismatic compass	March	Amrita Kayal	
IV		Basic concepts of surveying and survey equipment: Dumpy level	March	Amrita Kayal		
GEO-G-CC-4-04-TH (Cartography Lab) 30 Marks : 2 Credits		1	Graphical construction of scales: Plain and comparative	Feb, March	Dr. Suvasree Dutta (Dasgupta)	
		2	Construction of Projections: Simple Conic Projection With One Standard Parallel, Cylindrical Equal Area Projection And Polar Zenithal Stereographic Projection	March, April	Gouri Chakraborty	

		3	Construction of Thematic Maps: Proportional Squares, Proportional Circles, Choropleth and Isopleth	Feb, March, April	Dr. Vinay Limbu	
		4	Preparation of annotated thematic overlays from satellite standard FCCs of 1:50k	April	Amrita Kayal	
Semester VI (General)	GEO-G-DSE-B-6-04-TH (Population Geography) 60 Marks : 4 Credits	1	Development of Population Geography as a field of specialization. Relation between population geography and demography. Sources of population data, their level of reliability and problems of mapping	March, April	Amrita Kayal	
		2	Population Distribution: Density And Growth, Classical And Modern Theories On Population Growth, Demographic Transition Model	May	Gouri Chakraborty	
		3	World patterns and determinants of Population Distribution and growth. Concept of Optimum Population	Feb, March, April	Dr. Vinay Limbu	
		4	Population distribution, density and growth in India.	March	Dr. Vinay Limbu	
		5	Types of population composition: age-sex, rural-urban, literacy and education	Feb	Kakali Das	
		6	Measurement of fertility & Mortality. Concept of cohort & life table	Feb, March	Kakali Das	
		7	Population composition of india: Urbanization & occupational Structure	March	Kakali Das	
		8	Migration: Causes and types	March	Dr. Suvasree Dutta (Dasgupta)	
		9	National and International patterns of migration with reference to India	March	Dr. Suvasree Dutta (Dasgupta)	
		10	Population and development: Population resource regions (Ackerman). Concept of human Development Index and its components	Feb	Puspendu Dhali	
		11	Population policies in developed and less development countries. India's population policies. Population and environment, implication for the future	Feb, March	BABLU SAMANTA	
		12	Contemporary issues: Ageing of population, declining sex ratio, Population and environment dichotomy, impact of HIV/AIDS	May	Amrita Kayal	
		GEO-G-DSE-B-6-04-P (Population Geography Lab) 30 Marks : 2 Credits	1	Population projection by arithmetic method	March, April	BABLU SAMANTA
			2	Population density mapping: State-wise for India	April	Dr. Suvasree Dutta (Dasgupta)
			3	Analysis of work participation rate: Total and gender-wise for India	April, May	Dr. Suvasree Dutta (Dasgupta)
			4	Analysis of occupation structure by Dominant Distinctive Functions: Districts of West Bengal	March	Gouri Chakraborty
		GEO-G-SEC-B-6-04-TH (Sustainable Development) 90 Marks: 2 Credits	1	Sustainable development: Concept, Historical background, components, limitations	March	Amrita Kayal
			2	Challenges of sustainable development: Determinants, linkage among sustainable development, environment and poverty	April	Amrita Kayal
			3	Global environmental issues: Population, income and urbanization, health care, forest and water resources	March	Puspendu Dhali
			4	Global goals for sustainable development: Domain, conflict, crisis and compromise	April	Puspendu Dhali

