

ACADEMIC CALENDER								
Semester I, GEOGRAPHY Honours								
Distribution of Syllabus								
GEOACOR01T—Geotectonics and Geomorphology								
	Headlines of the Chapters with the topic	Total No. of Lectures	July to September No. of Lectures	Last week of September	October (2 weeks)	Rest of October & November No. of Lectures	First week of December	Final Semester Examination
Unit I	GEOTECTONICS	28	20	INTERNAL ASSESMENT	Puja Vacation	8	REVISION OF WHOLE SYLLABUS	End of December
a	Earth's tectonic and structural evolution with reference to geological time scale							
b	Earth's interior with special reference to seismology. Isostasy: Models of Airy and Pratt							
c	Plate Tectonics as a unified theory of global tectonics: Processes and landforms at plate margins and hotspots							
d	Folds and Faults—origin and types							
Unit II	GEOMORPHOLOGY	32	24					
a	Degradational processes: Weathering, mass wasting and resultant landforms							
b	Development of river network and landforms on uniclinal and folded structures							
c	Development of landforms on granites, basalts and limestones							
d	Coastal processes and landforms							
e	Glacial and glacio-fluvial processes and landforms							
f	Aeolian and fluvio-aeolian processes and landforms							
g	Models on landscape evolution: Views of Davis, Penk and Hack							

GEOACOR01P— Geotectonics and Geomorphology							
Headlines of the Chapters with the topic	Total No. of Lectures	July to September No. of Lectures	Last week of September	October (2 weeks)	Rest of October & November No. of Lectures	First week of December	Final Semester Examination
Megascopic identification of (a) mineral samples: Bauxite, calcite, chalcopyrite, feldspar, galena, gypsum, hematite, magnetite, mica, quartz, talc, tourmaline; and (b) rock samples: Granite, basalt, dolerite, laterite, limestone, shale, sandstone, conglomerate, slate, phyllite, schist, gneiss, quartzite, marble	60	44	INTERNAL ASSESMENT	Puja Vacation	16	REVISION OF WHOLE SYLLABUS	End of December
Interpretation of geological maps with unconformity and intrusions on uniclinal and folded structures							

GEOACOR02T— Cartographic Techniques							
Headlines of the Chapters with the topic	Total No. of Lectures	July to September No. of Lectures	Last week of September	October (2 weeks)	Rest of October & November No. of Lectures	First week of December	Final Semester Examination
a Maps: Classification and types. Components of a map	64	48	INTERNAL ASSESMENT	Puja Vacation	16	REVISION OF WHOLE SYLLABUS	End of December
b Concept and application of scales: Plain, comparative, diagonal and vernier							
c Survey of India topographical maps: Reference scheme of old and open series. Information on the margin of maps							
d Coordinate systems: Polar and rectangular							
e Concept of generating globe and UTM projection							
f Grids: angular and linear systems of measurement							
g Map projections: Classification, properties and uses							
GEOACOR02P—Cartographic Techniques	56	44	INTERNAL ASSESMENT	Puja Vacation	12	REVISION OF WHOLE SYLLABUS	End of December
a Graphical construction of scales: Plain, comparative, diagonal and vernier							
b Construction of projections: Polar Zenithal Stereographic, Simple Conic with two standard parallels, Bonne's, Cylindrical Equal Area, and Mercator's							
c Delineation of drainage basin from Survey of India topographical map. Construction and interpretation of relief profiles (superimposed, projected and composite), relative relief map, slope map (Wentworth), and stream ordering (Strahler) on a drainage basin.							
d Correlation between physical and cultural features from Survey of India topographical maps using transect chart.							

Semester II, GEOGRAPHY Honours								
Distribution of Syllabus								
GEOACOR03T—Human Geography								
	Headlines of the Chapters with the topic	Total No. of Lectures	No. of Lectures from January(2nd week) to March (3rd week)	Last week of March		No. of Lectures from April to May (1st week)	Last three weeks of May	June
Unit I	Nature and Principles	36	29	INTERNAL ASSEMENT		7	REVISION OF WHOLE SYLLABUS	University Sem II Examination
a	Nature, scope and recent trends. Elements of Human Geography							
b	Approaches to Human Geography; Resource, Locational, Landscape, Environmental							
c	Concept and classification of race; ethnicity							
d	Space, society and cultural regions (language and religion)							
Unit II	Society, Demography and Ekistics	54	31					
a	Evolution of human societies: Hunting and food gathering, pastoral nomadism, subsistence farming and industrial society							
b	Human adaptation to environment: Eskimo, Masai and Maori							
c	Population growth and distribution, composition; demographic transition							
d	Population-Resource regions (Ackerman)							
e	Types and patterns of rural settlements							
f	Morphology of urban settlements							

GEOACOR04T And 04P— Cartograms and Thematic Mapping

	Headlines of the Chapters with the topic	Total No. of Lectures	No. of Lectures from January(2nd week) to March (3rd week)	Last week of March		No. of Lectures from April to May (1st week)	Last three weeks of May	June
	GEOACOR04T	62	52			10		
a	Concepts of rounding, scientific notation, logarithm and anti-logarithm, natural and log scales							
b	Diagrammatic representation of data: Line, Bar, Isopleths							
c	Representation of area data: Dots and spheres, proportional circles and Choropleth							
d	Preparation and interpretation of land use land cover maps							
e	Preparation and interpretation of socio-economic maps							
f	Bearing: Magnetic and true, whole-circle and reduced							
g	Basic concepts of surveying and survey equipment: Prismatic Compass, Dumpy Level, Theodolite							
	GEOACOR04P	58	28			30s		
a	Thematic maps: – Choropleth showing density of population i) Dots and Spheres diagram showing distribution of rural and urban population. ii) Proportional pie-diagrams representing economic data and land use data							
b	Traverse survey using prismatic compass i) Profile survey using dumpy Level							

INTERNAL ASSESMENT

REVISION OF WHOLE SYLLABUS

University Sem II Examination

Semester III, GEOGRAPHY Honours								
GEOACOR05T and 05P— Climatology								
	Headlines of the Chapters with the topic	Total No. of Lectures	July to September No. of Lectures	Last week of September	October (2 weeks)	Rest of October & November No. of Lectures	First week of December	Final Semester Examination
	GEOACOR05T							
Unit I	Elements of Atmosphere	18	18	INTERNAL ASSESMENT	Puja Vacation	0	REVISION OF WHOLE SYLLABUS	End of December
a	1. Nature, composition and layering of atmosphere							
b	2. Insolation: controlling factors. Heat budget of the atmosphere							
c	3. Temperature: horizontal and vertical distribution. Inverse of temperature: types, causes and consequences							
d	4. Greenhouse effect and importance of ozone layer							
Unit II	Atmospheric Phenomena and Climatic Classification	42	26					
a	Condensation: Process and forms. Mechanism of precipitation: Bergeron-Findeison theory, collision and coalescence. Forms of precipitation							
b	Air mass: Typology, origin, characteristics and modification							
c	Fronts: warm and cold; frontogenesis and frontolysis							
d	Weather: stability and instability; barotropic and baroclinic conditions							
e	Circulation in the atmosphere: Planetary winds, jet stream, index cycle							
f	Tropical and mid-latitude cyclones							
g	Monsoon circulation and mechanism with reference to India							
h	Climatic classification after Koppen, Thornthwaite (1955) and Oliver							
	GEOACOR05P							
a	Interpretation of daily weather map of India (any two): Pre-monsoon, Monsoon and Post-Monsoon	60	44			16		
b	Construction and interpretation of hythergraph and climograph (G. Taylor)							
c	Construction and interpretation of wind rose							
d	. A Project File, comprising of one exercise from each of the following is to be prepared and submitted							

GEOACOR06T- Geography of India								
	Headlines of the Chapters with the topic	Total No. of Lectures	July to September No. of Lectures	Last week of September	October (2 weeks)	Rest of October & November No. of Lectures	First week of December	Final Semester Examination
Unit I	Geography of India	60	60	INTERNAL ASSEMENT	Puja Vacation	0	REVISION OF WHOLE SYLLABUS	End of December
a	Techtonic and stratigraphic provinces, physiographic divisions							
b	Climate, soil & vegetation: characteristic and classification							
c	Population: Distribution, growth, structure and policy							
d	Tribes of India with special reference to Gaddi, Toda, Santal and Jarwa							
e	Agricultural regions. Green revolution and its consqueces							
f	Mineral and power rersources distribution and utilization of iron ore , coal , petroleum and natural gas							
g	Industrial development; automobile and information technology							
h	Regionalization of India: Physiographic (R.L. Singh) and economic (P. Sengupta)							
Unit II	Geography of West Bengal	30	0	INTERNAL ASSEMENT	Puja Vacation	30	REVISION OF WHOLE SYLLABUS	End of December
a	Physical perspective: Physiographic divisions, forest and water resources							
b	Resources: Agriculture, mining and Industry							
c	Population: Growth, distribution and human development							
d	Region issue: Darjeeling hill and Sundarban							

GEOACOR07T and 07P— Statistical Methods in Geography

	Headlines of the Chapters with the topic	Total No. of Lectures	July to September No. of Lectures	Last week of September	October (2 weeks)	Rest of October & November No. of Lectures	First week of December	Final Semester Examination
	GEOACOR07T	34	34	INTERNAL ASSEMENT	Puja Vacation	0	REVISION OF WHOLE SYLLABUS	End of December
Unit I	Frequency distribution and sampling							
A	Importance and significance of statistics in Geography							
B	Discrete and continuous data, population and samples, scales of measurement (nominal, ordinal, interval and ratio)							
C	Sources of geographical data and statistical analysis							
D	Collection of data and formation of statistical tables							
E	Sampling: Need, types and significance and methods of random sampling							
F	Theoretical distribution: Frequency, cumulative frequency, normal and probability							
	Unit II Numerical Data Analysis	26	10	INTERNAL ASSEMENT	Puja Vacation	16	REVISION OF WHOLE SYLLABUS	End of December
A	Central tendency: Mean, median, mode, partition values							
B	Measures of dispersion range: mean deviation, standard deviation, co-efficient of variation							
C	Association and correlation: Rank correlation, product moment correlation							
D	Regression: Linear and non-linear							
	GEOACOR07P	60	44	INTERNAL ASSEMENT	Puja Vacation	16	REVISION OF WHOLE SYLLABUS	End of December
A	Construction of data matrix with each row representing an areal unit (districts/blocks/mouzas/town) and corresponding columns of relevant attributes							
B	Based on the above a frequency table, measures of central tendency and dispersion would be computed and interpreted using histograms and frequency curve							
C	Form of the data matrix a sample set (20 %) would be drawn using random, systematic and stratified methods of sampling and locate the samples on a map with short note on methods used							
d	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							

Semester IV, GEOGRAPHY Honours								
Distribution of Syllabus								
GEOACOR08T— REGIONAL PLANNING AND DEVELOPMENT								
	Headlines of the Chapters with the topic	Total No. of Lectures	No. of Lectures from January(2nd week) to March (3rd week)	Last week of March		No. of Lectures from April to May (1st week)	Last three weeks of May	June
	Unit I Regional Planning	25	25	INTERNAL ASSESMENT		0	REVISION OF WHOLE SYLLABUS	University Sem II Examination
a	Concept of Region: types and their delineation							
b	Regional planning:types, principles, objectives,tools and techniques							
c	Need for regional planning in India, multi level planning in India							
d	Metropolitan concept and Urban Agglomeration							
	Unit II Society, Demography and Ekistics	65	35					
a	Concept of growth and development, growth vs. development							
b	Indicators of development: Social, economic and environmental							
c	Human Development: concept and measurement							
d	Models of Regional Development: Cumulative Causation by Myrdal							
e	Models of Regional Development: Stages of Dev(Rostow), Growth Pole(Perroux)							
f	Concept and Causes of Underdevelopment							
g	Regional Development in India: Disperity/ Diversity							
h	Need and measures of Balanced development of India							

GEOACOR09T — ECONOMIC GEOGRAPHY								
	Headlines of the Chapters with the topic	Total No. of Lectures	No. of Lectures from January(2nd week) to March (3rd week)	Last week of March		No. of Lectures from April to May (1st week)	Last three weeks of May	June
	Unit 1	17	17	INTERNAL ASSESMENT		0	REVISION OF WHOLE SYLLABUS	University Sem II Examination
	Concepts							
a	Meaning and approaches to Economic Geography							
b	Concepts in Economic Geography: Goods and services, production, exchange and consumption							
c	Concept of economic man, theories of choices							
d	Economic distance and transport costs							
	UNIT 2: Economic Activities	73	43					
a	Concept and classification of economic activities							
b	Factors affecting location of economic activity with special reference to agriculture (Von Thünen), and industry (Weber).							
c	Primary activities: Agriculture, forestry, fishing and mining							
d	Secondary activities: Manufacturing (cotton textile, iron and steel), concept of manufacturing regions, special economic zones and technology parks							
e	Tertiary activities: Transport, trade and services							
f	Agricultural systems: Case studies of tea plantation in India and mixed farming in Europe							
g	Transnational sea-routes, railways and highways with reference to India							
h	International trade and economic blocs: WTO, GATT and BRICS: Evolution, structure and functions							

GEOACOR10T and 10P — ENVIRONMENTAL GEOGRAPHY

	Headlines of the Chapters with the topic	Total No. of Lectures	No. of Lectures from January(2nd week) to March (3rd week)	Last week of March		No. of Lectures from April to May (1st week)	Last three weeks of May	June
	GEOACOR10T	60	44		INTERNAL ASSESMENT	16	REVISION OF WHOLE SYLLABUS	
	Concepts							
a	Geographers' approach to environmental studies							
b	Concept of holistic environment and systems approach							
c	Ecosystem: Concept, structure and functions							
d	Space-time hierarchy of Environmental problems: Local, regional and global							
e	Environmental pollution and degradation: Land, water and air							
f	Urban environmental issues with special reference to waste management							
g	Environmental policies – National Environmental Policy, 2006, Earth Summits (Stockholm, Rio, Johannesburg)							
h	Global initiatives for environmental management (special reference to Montreal Protocol, Kyoto Protocol, Paris Climate Summit)							
	GEOACOR10P	60	30s			30		University Sem II Examination
a	Preparation of questionnaire for perception survey on environmental problems							
b	Preparation of check-list for Environmental Impact Assessment of an urban / industrial project							
c	Interpretation of air quality using CPCB / WBPCB data							

Semester V, GEOGRAPHY Honours								
GEOACOR11T and 11P --Fieldwork and Research Methodology								
Headlines of the Chapters with the topic	Total No. of Lectures	July to September No. of Lectures	Last week of September	October (2 weeks)	Rest of October & November No. of Lectures	First week of December	Final Semester Examination	
GEOACOR11T	30	30	INTERNAL ASSESMENT	Puja Vacation	0	REVISION OF WHOLE SYLLABUS	End of December	
Unit I								
a								
b								
c								
d								
e								
Unit II	30	12	INTERNAL ASSESMENT	Puja Vacation	18	REVISION OF WHOLE SYLLABUS	End of December	
a								
b								
c								
d								
e								
GEOACOR11P	60	39	INTERNAL ASSESMENT	Puja Vacation	21ss	REVISION OF WHOLE SYLLABUS	End of December	
a								
b								
c								
d								

	Aspects: 1500 words; Concluding Chapter: 500 words, approximately) excluding tables, photographs, maps, diagrams, references and appendices					
e	.Maps and diagrams should not exceed 15 pages.					
f	All sections of the report should contain relevant maps, diagrams and photographs using primary and secondary data, clearly citing sources.					
g	A copy of the bound report, duly signed by the concerned teacher, will be submitted during examination.					

GEOACOR12T and 12P --Remote Sensing and GIS								
Headlines of the Chapters with the topic	Total No. of Lectures	July to September No. of Lectures	Last week of September	October (2 weeks)	Rest of October & November No. of Lectures	First week of December	Final Semester Examination	
GEOACOR12T	30	30	INTERNAL ASSESMENT	Puja Vacation	0	REVISION OF WHOLE SYLLABUS	End of December	
Unit I								
a Principles of Remote Sensing (RS): Types of RS satellites and sensors								
b Sensor resolutions and their applications with reference to IRS and Landsat missions								
c Preparation of False Colour Composites from IRS LISS-3 and Landsat TM and OLI data.								
d Principles of image correction and interpretation. Preparation of inventories of landuse land cover (LULC) features from satellite images.								
e Techniques of writing scientific reports: Preparing notes, references, bibliography, abstract and keywords.								
Unit II	30	15	INTERNAL ASSESMENT	Puja Vacation	15	REVISION OF WHOLE SYLLABUS	End of December	
a Concept of GIS and its applicability ; GIS data structures: types: spatial and non-spatial, raster and vector								
b Principles of preparing attribute tables and data manipulation and overlay analysis								
c Principles of GNSS positioning and waypoint collection								
d Transferring waypoints to GIS. Area and length calculations from GNSS data..								
GEOACOR12P	60	40	INTERNAL ASSESMENT	Puja Vacation	20	REVISION OF WHOLE SYLLABUS	End of December	
a Georeferencing of maps and images using Open Source software								
b Preparation of FCC and identification of features using standard FCC and other band combinations								
c Digitisation of features. Data attachment, overlay and preparation of annotated thematic maps (choropleth, pie chart and bar graphs).								

GEOADSE01T— Soil and Biogeography								
	Headlines of the Chapters with the topic	Total No. of Lectures	July to September No. of Lectures	Last week of September	October (2 weeks)	Rest of October & November No. of Lectures	First week of December	Final Semester Examination
	Unit I Soil Geography	46	27	INTERNAL ASSESMENT	Puja Vacation	19	REVISION OF WHOLE SYLLABUS	End of December
a	Factors of soil formation. Man as an active agent of soil transformation.							
b	Factors of soil formation. Man as an active agent of soil transformation.							
c	Definition and significance of soil properties: Texture, structure and moisture,							
d	Definition and significance of soil properties: pH, organic matter and NPK							
e	Soil erosion and degradation: Factors, processes and mitigation measures							
f	Principles of soil classification: Genetic and USDA. Concept of land capability and its classification.							
	Unit II Biogeography	44	16					
a	Concepts of biosphere, ecosystem, biome, ecotone, community, niche, succession and ecology							
b	Concepts of trophic structure, food chain and food web. Energy flow in ecosystems							
c	Geographical extent and characteristic features of: Tropical rain forest, Taiga and Grassland biomes							
d	Bio-geochemical cycles with special reference to carbon dioxide and nitrogen							
e	Spatial distribution of world fauna							
f	Measures for conservation of bio-diversity in India: Man and Biosphere Programme							

GEOADSE02T— Settlement Geography												
	Headlines of the Chapters with the topic	Total No. of Lectures	July to September No. of Lectures	Last week of September	October (2 weeks)	Rest of October & November No. of Lectures	First week of December	Final Semester Examination				
Unit I	Rural Settlement	45	35	INTERNAL ASSESMENT	Puja Vacation	10	REVISION OF WHOLE SYLLABUS	End of December				
a	Scope and content of Settlement Geography; rural, urban and peri-urban areas											
b	Rural Settlement: Definition, nature and characteristics											
c	Morphology of rural settlements: site and situation, layout-internal and external											
d	Rural house types with reference to India, Social segregation in rural areas; Census categories of rural settlements.											
e	Problems and policies related to rural infrastructure with reference to India.											
Unit II	Urban Settlement	45	18							27s		
a	Urban Settlements :Census definition (Temporal) and categories in India											
b	Urban morphology: Classical models: Burgess, Homer Hoyt, Harris and Ullman Metropolitan concept.											
c	City-region and Conurbation , Functional classification of cities: Harris, Nelson and McKenzie											
d	. Aspects of urban places: Location, site and situation, Size and spacing of cities: the rank size rule, the law of the primate city											
e	.Urban hierarchies : Central Place Theory; August Lösch's theory of market centres											

Semester VI, GEOGRAPHY Honours								
GEOACOR13T — Evolution of Geographical Thought								
	Headlines of the Chapters with the topic	Total No. of Lectures	No. of Lectures from January(2nd week) to March (3rd week)	Last week of March		No. of Lectures from April to May (1st week)	Last three weeks of May	June
a	Development of Geography: Contributions of Greek and Chinese geographers	90	60	INTERNAL ASSESMENT		30	REVISION OF WHOLE SYLLABUS	University Sem II Examination
b	Impact of 'Dark Age' in Geography and Arab contributions							
c	Geography during the age of 'Discovery' and 'Exploration' (contributions of Columbus, Vasco da Gama, Magellan, Thomas Cook)							
d	Transition from cosmography to scientific Geography (contributions of Bernard Varenius and Immanuel Kant). Dualism and Dichotomies (Ideographic vs. Nomothetic, Physical vs. Human, Regional vs. Systematic, Determinism vs. Possibilism.)							
e	Evolution of Geographical thoughts in Germany, France, Britain and United States of America							
f	Contributions of Humboldt and Ritter							
g	Contributions of Richthofen, Hettner, Ratzel and Vidal deLaBlaché							
h	Trends of geography in the post-World War-II period: Quantitative Revolution, systems approach.							
i	Evolution of Critical Geography: Behavioural, humanistic and radical.							
j	Changing concept of time-space in geography in the 21st Century							

GEOACOR14T and 14 P— Disaster Management								
	Headlines of the Chapters with the topic	Total No. of Lectures	No. of Lectures from January(2nd week) to March (3rd week)	Last week of March		No. of Lectures from April to May (1st week)	Last three weeks of May	June
Unit I	GEOACOR14T	60	40	INTERNAL ASSESMENT		20	REVISION OF WHOLE SYLLABUS	University Sem II Examination
a	Classification of hazards and disasters.							
b	Approaches to hazard study: Risk perception and vulnerability assessment. Hazard paradigms.							
c	Responses to hazards: Preparedness, trauma and aftermath. Resilience and capacity building.							
d	Hazards mapping: Data and geospatial techniques (for hazards enlisted in Unit II and Core 14P)							
e	Earthquake: Factors, vulnerability, consequences and management							
f	Landslide: Factors, vulnerability, consequences and management							
g	Tropical Cyclone: Factors, vulnerability, consequences and management							
h	Riverbank erosion: Factors, vulnerability, consequences and management							
i	Radioactive fallout: Factors, vulnerability, consequences and management							
Unit II	GEOACOR014P	60	40			20		
a	Project Report							

GEOADSE04T— Hydrology and Oceanography

GEOADSE04T—
Hydrology and
Oceanography

	Headlines of the Chapters with the topic	Total No. of Lectures	No. of Lectures from January(2nd week) to March (3rd week)	Last week of March		No. of Lectures from April to May (1st week)	Last three weeks of May	June		
		90	60			30				
a	Systems approach in hydrology. Global hydrological cycle: Its physical and biological role.						INTERNAL ASSESMENT		REVISION OF WHOLE SYLLABUS	University Sem II Examination
b	Run off: controlling factors. Infiltration and evapotranspiration. Run off cycle									
c	Drainage basin as a hydrological unit. Principles of water harvesting and watershed management									
d	Groundwater: Occurrence and storage. Factors controlling recharge, discharge and movement									
e	Major relief features of the ocean floor: characteristics and origin according to plate tectonics									
f	Physical and chemical properties of ocean water									
g	Water mass, T-S diagram									
h	Ocean temperature and salinity: Distribution and determinants									
i	Marine resources: Classification and sustainable utilisation									
j	Sea level change: Types and causes									

GEOADSE06T— Resource Geography

GEOADSE04T—
Hydrology and
Oceanography

	Headlines of the Chapters with the topic	Total No. of Lectures	No. of Lectures from January(2nd week) to March (3rd week)	Last week of March		No. of Lectures from April to May (1st week)	Last three weeks of May	June
		90	64	INTERNAL ASSESMENT		26	REVISION OF WHOLE SYLLABUS	University Sem II Examination
a	Natural Resources: Concept and classification							
b	Approaches to Resource Utilization: Utilitarian, Conservational, Community based adaptation							
c	Significance of Resources: Backbone of Economic growth and development							
d	Pressure on resources. Appraisal and Conservation of Natural Resources							
e	Sustainable Resource Development							
f	Distribution, Utilisation, Problems and Management of Mineral Resources: Bauxite and Iron Ore.							
g	Distribution, Utilisation, Problems and Management of Energy Resources: Conventional and Non-Conventional							
h	Contemporary Energy Crisis and Future Scenario							
i	Limits to Growth and Sustainable Use of Resources; Concept of Resource sharing: Water							