B.A/B.SC. GEOGRAPHY HONOURS

<mark>I, III & V SEMESTER</mark>

SYLLABUS DISTRIBUTION

GEOGRAPHY

COURSE 1

Course title: Geotectonics and Geomorphology Theory Credits: 6

SL. NO	SYLLABUS	TEACHER'S NAME
1	Unit 1: Geotectonics	DR. SURAJIT
-	Earth's tectonic and structural evolution with	LET
	reference to geological time scale	
	Concept of Isostasy:Theories of Airy and Pratt	
	Unit 2: Geomorphology	
	 Types of rocks, mineralogical composition 	
	of igneous rocks; Landforms on igneous	
	rockswith special reference to Granite	
	and Basalt	
2	Unit 2: Geomorphology	MR.
	Development of river network and landforms on	SUBRATA
	uniclinal and folded structures	DEWASI
3		
	Unit 2: Geomorphology	
	Glacial and fluvio-glacial processes and	MR.
	landforms .	GOTISUNDAR
	Aeolian and fluvio-aeolian processes and landforms.	MUKHERJEE
4	Unit 1: Geotectonics	MR.
	Earth's interior with special reference to	RASHBIHARI
	seismology	GARAIN
	Unit 2: Geomorphology > Degradational processes: Weathering, mass	
	wasting and resultant landforms	
	Models of landscape evolution: Views of Davis,	
	Penck, and Hack	
	Slope Development: Concept of Wood	
5	Unit 1: Geotectonics	MR. SANJAY
	Plate Tectonics: Processes at constructive,	MANDAL
	conservative, destructive boundariesand	
	hotspots: resulting landforms	
	Unit 2: Geomorphology	
	 Karst landforms: Surface and sub-surface 	

GEOGRAPHY

COURSE 2

Course title: Cartographic Techniques and Geological map study Theory Credits: 4

SL. NO	SYLLABUS	TEACHER'S NAME
1	 Coordinate Systems: Polar and Rectangular. Concept of Geoid and Spheroid. MapProjections: Classification, Properties and Uses. Concept and Significance of UTM Projection 	DR. SURAJIT LET
2	Concept of Scales: Plain, Comparative, Diagonal and Vernier	MR. GOTISUNDAR MUKHERJEE
3	 Maps: Classification and Types. Components of a Map Concept of Generating Globe, Grids: Angular and Linear Systems of Measurement . Survey of India Topographical Maps: Reference scheme of Old and Open series . Delineation of Drainage Basin from Survey of India Topographical Map. Concept of Relief, Slope and Stream Order. 	MR. SUBRATA DEWASI
4	 Concept of Bedding Plane, Unconformity and Non-conformity, thickness of Bed, Dip,Throw, Hade, heave Types of rocks and minerals. Characteristics of Granite, Basalt, Dolerite, Pegmatite, Gneiss, Shale, Sandstone, Slate, Marble, Quartzite, Quartz, Feldspar, Mica, Limestone,Calcite, Bauxite, Magnetite, Hematite, Galena 	MR. RASHBIHARI GARAIN

GEOGRAPHY

COURSE 2

Course title: Cartograms, Survey and Thematic Mapping (Practical) Theory Credits: 2

SL. NO	SYLLABUS	TEACHER'S NAME
1	Construction of Projections: Polar Zenithal Stereographic, Simple Conic with two Standard Parallels, Bonne's and Mercator's	DR. SURAJIT LET
2	Construction of Scales: Plain, Comparative, Diagonal and Vernier	MR. GOTISUNDAR MUKHERJEE
3	Geological Map (Problems related to Horizontal, Uniclinal, Folded and Faulted structure);Drawing ofGeological section and Interpretation of the Map	MR. RASHBIHARI GARAIN
4	 Construction and Interpretation of Relief Profiles (Superimposed, Projected and Composite), Preparation of Relative Relief Map, Slope map (Wentworth), and Stream Ordering(Strahler) on a Drainage Basin. 	MR. SUBRATA DEWASI

SEMESTER III GEOGRAPHY COURSE : CC 5 COURSE TITLE : CLIMATOLOGY THEORY CREDITS : 6

SL. NO	SYLLABUS	TEACHER'S NAME
1	 Unit 2: Atmospheric Phenomena, Climate Change and Climatic Classification ➢ Air mass: Typology, origin, characteristics and modification. ➢ Evidences and causes of climate change . ➢ Fronts: warm and cold; frontogenesis and frontolysis. 	DR. SURAJIT LET
2	 Unit 1: Elements of the Atmosphere Nature, composition and layering of the atmosphere, Insolation : controlling factors. Heat budget of the atmosphere. Temperature: horizontal and vertical distribution. Inversion of temperature: types, causeand consequences. Greenhouse effect and importance of ozone layer Unit 2: Atmospheric Phenomena, Climate Change and Climatic Classification Weather: stability and instability; barotropic and baroclinic conditions. 	MR. GOTISUNDAR MUKHERJEE
3	 Unit 2: Atmospheric Phenomena, Climate Change and Climatic Classification ➢ Circulation in the atmosphere: Planetary winds, jet stream and monsoons ➢ Tropical and mid-latitude cyclones ➢ Condensation: Processes and forms. Mechanism of precipitation: Bergeron-Findeisentheory, collision and coalescence. Forms of precipitation ➢ Climatic classification after Köppen, Thornthwaite (1948) 	MR. SANJAY MANDAL

GEOGRAPHY

COURSE 6

COURSE TITLE : STATISTICAL METHODS IN GEOGRAPHY (THEORY) THEORY CREDITS : 4

S L. N O	SYLLABUS	TEAC HER'S NAME
1	 Unit 1 Importance and significance of Statistics in Geography. Discrete and continuous data, population and samples, scales of measurement (nominal, ordinal, interval and ratio), sourcesof data Collection of data and formation of statistical tables Distribution: frequency, cumulative frequency Unit 2 Central tendency: Mean, median, mode, partition values Measures of dispersion range, mean deviation, standard deviation, coefficient of variation 	Dr. Gouta m Chatt erjee
2	<pre>Unit 1</pre>	MR. SUBR ATA DEWA SI

GEOGRAPHY

COURSE 6

COURSE TITLE : ENVIRONMENTAL GEOGRAPHY (PRACTICAL) THEORY CREDITS : 2

SL. NO	SYLLABUS	TEACHER'S NAME
1	 Based on the above, a frequency table, measures of central tendency and dispersionwould be computed and interpreted. Histograms and frequency curve would be prepared on the dataset. 	DR. GOUTAM CHATTERJEE
2	Construction of data matrix with each row representing an aerial unit (districts / blocks /mouzas / towns) and corresponding columns of relevant attributes.	DR. SURAJIT LET
3	Based on of the sample set and using two relevant attributes, a scatter diagram and regression line would be plotted and residual from regression would be mapped with a short interpretation.	MR. SUBRATA DEWASI

SEMESTER III GEOGRAPHY

COURSE : CC 7 COURSE TITLE : GEOGRAPHY OF INDIA THEORY CREDITS : 6

SL. NO	SYLLABUS	TEACHER'S NAME
1	UNIT -1 : GEOGRAPHY OF INDIA	DR. SURAJIT
	Population: Distribution, growth, structure and policy	LET
	 Distribution of population by race, caste, religion, language, tribes 	
	Unit 2: Geography of West Bengal	
	 Regional Development: Darjeeling Hills and Sundarban 	
	Resources: Mining, agriculture and industries	
2	UNIT -1 : GEOGRAPHY OF INDIA	
	 Agricultural regions, Green revolution and its consequences 	MR. GOTISUNDAR
	Mineral and power resources distribution and utilisation of iron ore, coal, petroleum	MUKHERJEE
3	UNIT -1 : GEOGRAPHY OF INDIA	
	Industrial development since independence.	MR.
	Regionalisation of India: Views of Spate and Bhatt.	SUBRATA DEWASI
4	Unit 2: Geography of West Bengal	MR.
	Physical perspectives: Physiographic divisions, forest and water resources	RASHBIHARI GARAIN
	Population: Growth, distribution and human development	
	UNIT -1 : GEOGRAPHY OF INDIA	
5	 Geology and physiographic divisions Climate, soil and vegetation: Characteristics and 	MR. SANJAY MANDAL
	classification	

GEOGRAPHY

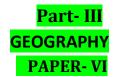
COURSE : SEC 1 COURSE TITLE : (PRACTICAL) THEORY CREDITS : 2

SL. NO	SYLLABUS	TEACHER'S NAME
<u>NO</u>	 COMPUTER BASICS AND COMPUTER APPLICATIONS Numbering Systems; Binary Arithmetic Data Computation, Storing and Formatting in Spreadsheets: Computation of Rank, Mean, Median, Mode, Standard Deviation, Moving Averages, Derivation of Correlation, Covariance and regression; Selection of technique and interpretation. Preparation of Annoted Diagrams and its 	MR. RASHBIHARI GARAIN
	 interpretation: Scatter diagram and Histogram Internet Surfing: Generation and extraction of information 	

Part- III PAPER-V

COURSE TITLE : NATURE OF GEOGRAPHY

S L. N O	SYLLABUS	TEACH ER'S NAME
1	 DEVELOPMENT OF GEOGRAPHY Definition, Scope and Content of Geography Development of Geography in the Ancient and Mediaeval Periods(upto19thCentury) DevelopmentofModernScientificGeographyinthe1 9th Century with particular reference to the Contributions of Humboldt and Ritter Development of Geography in the20th Century (upto 1970) 	DR. SURAJI T LET
	DEVELOPMENT OF SCHOOLS OF THOUGHT IN MODERN GEOGRAPHY German School French School American School Indian School	
2	 ENVIRONMENT AND DEVELOPMENT RelationshipamongPopulationGrowth,Economi cDevelopmentandEnvironmentalConservation Environmental Issues Related to Urban and Industrial Expansion Environmental issues of Large Dams Sustainable Development 	MR. GOTISU NDAR MUKHE RJEE
3	 CONCEPTS AND TRENDS IN GEOGRAPHY Concepts of Determinism, Possibilism and Neo- Determinism Concepts of Empiricism and Positivism 	MR. SUBRA TA DEWAS I
4	 APPROACHES TO REGIONAL STUDIES ➢ Concepts and Types of Region ➢ Bases and Methods of Regionalisation ➢ Scale and Hierarchy of Region ➢ Region and Regionalism 	MR. RASHBI HARI GARAI N
5	 ONCEPTSANDTRENDSINGEOGRAPHY Approaches to Geographic Studies : Systematic vs Regional and Ecological Critique of Quantitative Revolution in Geography 	MR. SANJAY MAND AL



COURSE TITLE : ECONOMIC AND SOCIAL GEOGRAPHY

SL. NO	SYLLABUS	TEACHER 'S NAME
1	 POPULATION Determinants and Dynamics of Population Growth Growth of World Population; Demographic Transition Model Migration :Types and Impact on Place of Origin and Destination Population Policy : India and China 	DR. SURAJIT LET
2	SOCIETY AND CULTURE	
	 Nature and Content of Social Geography, Evolution of Social Geography Races and Ethnicity: Major Racial Groups of the World Concept of Culture and Its Components; Innovation, Diffusion and Convergence of Culture Cultural Realms of the World and their Characteristics 	MR. GOTISUN DAR MUKHER JEE
3	 ECONOMIC ACTIVITY Agricultural Systems: Plantation Agriculture and Mixed Farming Models of Economic Activities :Von-Thunen , Weber, Losch Industrial Regions :Great Lakes ,Mumbai- Pune, Asansol –Durgapur International Trade with Special Reference to WTO, EEC and SAARC 	MR. SUBRATA DEWASI
4	 RESOURCE Resource:ConceptandClassification,EconomicandEn vironmentalApproachesof Resource Utilisation Different sources of Energy Resources, their Relative Importance, Production and Consumption Problems of Resource Depletion –Global Scenario(Forest, Water, Fossil Fuels), Necessity and Methods of Resource Conservation; Expanding Oceanic Resource Horizon 	MR. RASHBIH ARI GARAIN
5	 SETTLEMENT Concept of Rural and Urban Settlement, Problems of Definition and Classification of Urban Settlement Types and Patterns of Rural Settlement Theories of Urban Structure Propounded by E.W.Burgess, Harris –Ullman and Homer Hoyt Functional Hierarchy of Urban Settlement with Special Reference to Christaller's Central Place Theory 	MR. SANJAY MANDAL

Part- III GEOGRAPHY

PAPER- VII

COURSE TITLE : GEOGRAPHY OF INDIA

SL	SYLLABUS	TEACHER'S
		NAME
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1	INDIA : PHYSICALASPECTS	DR. SURAJIT
-	Geology and Structure with Special Reference	LET
	to Himalayan Structure and Evolution of the	
	Peninsular India	
	Drainage Systems: Evolution and	
	Characteristics of Peninsular and Extra-	
	Peninsular RiversClimatic Characteristics: Seasonality,	
	Unevenness and Unreliability of Rainfall,	
	Drought and Floods	
	 Classification and Characteristics of Soils, 	
	Causes and Consequences of Deforestation	
	REGIONAL ASPECTS	
	Bases and Schemes of Regionalization of India	
	into Geographical Regions	
	Chotoanagpur Plateau	
	 West Bengal Delta Malabar Coast 	
		MR.
	Population Growth and Human Development	GOTISUNDA
	since Independenc	R
	Languages Groups: Characteristics and Spatial	MUKHERJEE
	Distribution	
	ECONOMIC ASPECTS	
2	Agricultural Policy and Development since	MR.
	Independence	SUBRATA
	Agro-Climatic Regions in India and Impact of Croop Revolution	DEWASI
	Impact of Green Revolution Industrial Policy and Development 	
	since Independence	
	 Recent Trends of Industrialization 	
	with Special Reference to SEZs	
	SOCIO-CULTURALASPECTS	MR.
3	Caste and Social Morphology in Rural India	RASHBIHARI
	Characteristics and Recent Trends of Urbanisation	GARAIN
	WESTBENGAL	MR. SANJAY
4	Physiographic Region of West Bengal	MANDAL
	Problems of Flood and Drought and their	
	Management	
	Regional Problems of Darjeeling Hill Region and Sundarbans	
	 Population Growth and Human Development 	

Part- III

GEOGRAPHY

PAPER-VIII (PRACTICAL)

COURSE TITLE : APPLIED GEOGRAPHICAL TECHNIQUES

SL. NO	SYLLABUS	TEACHER'S NAME
1	 ANALYSIS OF GEOLOGICAL MAPS Construction of Geological Section of Horizontal, Uniclinal, Folded and Faulted Structures Along with Igneous Intrusions and Line of Unconformity Succession and Relation with Rock Groups Topography and its Relation with Underlying Structures Interpretation of Geological History 	DR. SURAJIT LET
2	 OANALYSISOFCLIMATICDATAANDMAPS Rainfall Dispersion Diagram Construction of Station Model (Indian Context) Preparation of Synoptic Chart and Interpretation (Indian Context) Interpretation of Daily Weather Maps Prepared by Indian Meteorological Department 	MR. SUBRATA DEWASI
3	 COMPUTER APPLICATION, REMOTE SENSING AND GIS Data Entry: Arrangement into Ascending and Descending Order; Cartograms Using Excel: Bar, Pie, Line Graph and Doughnut Chart Calculation of Central Tendency and Standard Deviation Using Formula Bivariate Techniques : Scatter Diagram and Fitting of Trend Lines Basic Concepts of Remote Sensing, GIS and GPS Location of a Place Using GPS; Georeferencing of Scanned Maps and Images(Using Software) Principles of Preparing and Interpretation of Standard FCC of Images; Digital Classification and Extraction of Physiographic and Cultural Features (Using Software) 	MR. RASHBIHARI GARAIN

Part- III

GEOGRAPHY PAPER-VIII (PRACTICAL)

COURSE TITLE : FIELD REPORT

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	FIELD REPOR TO NEITHER A RURAL MOUZA OR AT	
	LEAST ONE WARD OF AN URBAN AREA TO BE	
	CONDUCTED DURING FIELD EXCURSION	
	Guidelines for field report on rural mouza	
	The following methods are to be followed before the	
	preparation of field report:	MR.
	(a) Plot-to-Plot Land Use Survey	GOTISU
	(b) Collection of Socio-Economic and Physical Data	NDAR
1	(c) Classification and Tabulation of Data	MUKHE RJEE
	(d) Preparation of Land Use Map on Cadastral Plan	NOLL.
	(e) PreparationofMapsandDiagramsshowingPhysio	&
	graphy,Drainage,Soil,Forest, Settlement, Irrigation, Cropping Pattern, Demographic Characteristics <i>etc</i> .	MR. RASHBI
	(f) Interrelation and	HARI
	Analysis of Data,	GARAIN
	Maps and Diagrams	
	The Report is to be	
	Prepared under the	
	following sections:	
	(a) Introduction:Objective,ExtentandSpaceRelatio	
	ns,SourcesofInformation,Methodology etc.	
	(b) PhysicalComponents:Lithology,Drainage,Surfac	
	eCondition,Slope,Climate,Soil Vegetation, etc.	
	(c) Population:Number,FMR,Literacy,Occupational	
	Structure, Ethnicand Religious Composition,	
	Language, Mobility, Media Exposure, Per Capita	
	Income <i>etc</i> .	

B.A/B.SC. GEOGRAPHY GENERAL

I, III & V SEMESTER

SYLLABUS DISTRIBUTION

GEOGRAPHY

COURSE – CC1A

COURSE TITLE: GEOTECTONICS AND GEOMORPHOLOGY Theory Credits: 4

SL. NO	SYLLABUS	TEACHER'S NAME
1	 Lithosphere – Internal Structure of Earth based on Seismic Evidence, Plate Tectonics and its associated landforms. 	DR. SURAJIT LET
2	 Weathering: Types and related landforms Landform development in arid regions. 	MR. SUBRATA DEWASI
3	 Landform development in glaciated regions. Hydrological Cycle and ground water 	MR. RASHBIHARI GARAIN
4	 Development of fluvial landforms . Fluvial Cycle of Erosion – Davis and Penck. 	MR. SANJAY MANDAL

GEOGRAPHY

COURSE CC1A COURSE TITLE: SCALE AND CARTOGRAPHY (PRACTICAL) Theory Credits: 2

SL. NO	SYLLABUS	TEACHER'S NAME
1	Composite bar diagram and age-sex pyramid.	DR. SURAJIT LET
2	 Linear and Comparative scale. Taylor's Climograph and Hythergraph. Proportional diagrams: Circles and squares . 	MR. SUBRATA DEWASI



GEOGRAPHY

COURSE CC 1C

HUMAN GEOGRAPHY AND MAP STUDY COURSE TITLE: HUMAN GEOGRAPHY Theory Credits: 4

SL. NO	SYLLABUS	TEACHER'S NAME
1	 Definition, Nature, Major Subfields, Contemporary Relevance. Eskimos: Adjustment to the environment and recent development . Settlements: Types and Patterns of Rural Settlements; 	DR. SURAJIT LET
2	 Classification of Urban Settlements; Functional classification of towns. World Population Distribution and Composition (Age, Gender and Literacy) 	MR. SUBRATA DEWASI
3.	 Space and Society: Cultural Regions; Race; Religion and Language Types of population migration with reference to India . 	MR. SANJAY MANDAL

GEOGRAPHY

COURSE CC 1C HUMAN GEOGRAPHY AND MAP STUDY

COURSE TITLE: MAP PROJECTION AND MAP INTERPRETATION (PRACTICAL)

Theory Credits: 4

SL. NO	SYLLABUS	TEACHER'S NAME
1	 Simple Conical projection with one standard parallel Cylindrical Equal Area projection 	DR. SURAJIT LET
2	Interpretation of weather maps	MR. SUBRATA DEWASI
3	Interpretation of Topographical maps: Relation between Physiography, drainage and settlement	MR. SANJAY MANDAL

GEOGRAPHY

COURSE : SEC 1

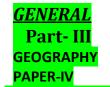
COURSE TITLE : COMPUTER BASICS AND COMPUTER APPLICATIONS (PRACTICAL) THEORY CREDITS : 2

SL. NO	SYLLABUS	TEACHER'S NAME
	COMPUTER BASICS AND COMPUTER APPLICATIONS	
1	 Numbering Systems; Binary Arithmetic Data Computation, Storing and Formatting in Spreadsheets: Computation of Rank, Mean, Median, Mode, Standard Deviation, Moving Averages, Derivation of Correlation, Covariance and regression; Selection of technique and interpretation. Preparation of Annoted Diagrams and its interpretation: Scatter diagram and Histogram Internet Surfing: Generation and extraction of information 	MR. SUBRATA DEWASI & DR. SURAJIT LET

<u>GENERAL</u> Part- III GEOG RAPHY PAPER -IV Group-A (Theoretical)

COURSE TITLE : GEOGRAPHY OF INDIA

SL. NO	SYLLABUS	TEACHER 'S NAME
1	 PHYSICALASPECTS Structure and Relief & their Interrelationship Characteristics of River Systems of Peninsular and Extra-Peninsular India Climatic Characteristics: Seasonality, Unevenness and Unreliability of Rainfall Distribution of Natural Vegetation, Soil and their Interrelationship 	DR. SURAJIT LET
2	 Socio-ECONOMICASPECTS Distribution and Production of Principal Crops (Rice, Wheat, Cotton and Tea) Power Resources :Coal, Petroleum and Hydroelectricity Locational Factors and Growth of Iron and Steel and Aluminium Industries Population Growth and Distribution, Population Problems, Trends of Urbanisation 	MR. SUBRATA DEWASI
3	REGIONALASPECTS > Kashmir Himalaya > Deccan Trap > Bengal Delta > Marusthali	MR. RASHBIH ARI GARAIN



GROUP - B (PRACTICAL)

COURSE TITLE : ANALYTICAL TECHNIQUES IN GEOGRAPHY

SL. NO	SYLLABUS	TEACHER 'S NAME
2	 STATISTICAL TECHNIQUES ➢ Measures of Central Tendency: Mean, Median and Mode ➢ Simple Correlation: Scatter Diagram and Fitting of Trend-Line by Eye-Estimation 	DR. SURAJIT LET
2	 STATISTICAL TECHNIQUES Methods of Collection, Classification and Tabulation of Data Frequency Distribution: Graphical Representation and Interpretation of Histogram, Frequency Polygon, Curves and Ogives 	MR. SUBRATA DEWASI
3	 LABORATORYWORK Reading of Barometer, Hygrometer and Maximum and Minimum Thermometer Determination of Soil Texture by Feel Method and Soil pH by Soil Kit Measurement of Area by Graphical Method and Length by Rotameter 	MR. RASHBIHA RI GARAIN
4	 LABORATORYWORK Megascopic Identification of Common Minerals and Rocks & their Characteristics : Quartz, Mica, Feldspar, Bauxite, Haematite, Granite, Basalt, Conglomerate, Sandstone, Shale, Gneiss, Schist, Phyllite and Marble 	MR. GOTISUN DAR MUKHERJ EE