ACADEMIC CALENDAR DEPARTMENT OF GEOGRAPHY

Session: 2017- 2018

Year	(Hons/General)	Syllabus Module/Unit	Торіс	Teachers	Distribution	Project/ Student Seminar (if any)
			PAPER- I			
		S	1. Geological timescale	D.B		
			2. Structure of the earth: crust and interior.	D.B	July- October	
		EOTEC	3. Isostasy: concepts postulated by Pratt and Airy.	D.B		
		GROUP A: GEOTECTONICS	4. Continental Drift, Sea Floor Spreading.	D.B	November- December	
_	RS –	GROU	5. Plate Tectonics as explanation of mountain building, volcanism and earthquakes.	D.B	January- March	
PART	HONOURS	GY	1. Processes of weathering and mass wasting and their impact on landforms	A.S		
		HC GROUP B: GEOMORPHOLOGY	 Influence of lithology on landforms: Granite and Basaltic landforms. 	A.S	July- October	
		B: GEOM(3. Definition and classification of folds and faults.	A.S		
		GROUP	4. Evolution of landforms in Uniclinal, Folded and Faulted Structures.	A.S	November- December	
			5. Development of landforms: Fluvial, Glacial, and Coastal.	A.S	January- March	



	6. Cyclic and non-cyclic concepts of landscape evolution: Davis, Penck and Hack.	A.S	
ХНЧХ	1. Global hydrological cycle and its significance.	0.М	
GROUP C: HYDROLOGY AND OCEANOGRAPHY	2. Aspects of runoff, infiltration, evaporation and transpiration, Runoff cycle.	0.М	July- October
LOGY AN	3. Factors influencing ground water movement and storage.	0.M	
JP C: НҮDRO	4. Ocean sediments: origin, classification.	M.M	November- December
GROL	5. Salinity and temperature of ocean water.	M.M	January- March
	PAPER- II		
\diamond	1. Resource: Concept and classification. Economic and environmental approaches of resource utilisation	О.М	
GROUP A: ECONOMIC GEOGRAPHY	2. Different sources of energy resources, production and consumption with special	0.М	July- October
OMIC G	reference to coal, petroleum, solar and wind.	0.М	
: ECON	3. Characteristic of economies:	0.М	
OUP A	a) Fishing, b) Agricultural, c) Manufacturing	0.М	
GR	4. Selected production systems:	A.D.S	
	a) Intensive rice farming: India and South East Asia.	A.D.S	November- December
	b) Extensive wheat farming: USA and Canada.	A.D.S	



	c) Plantation farming: Tea in India and rubber in SE Asia.	A.C	
	d) Cotton textile industry: India and USA.	S.K.D	
	e) Iron and Steel industry: India and Japan.	S.K.D	
	f) Petrochemical industry: India and USA.	S.K.D	January-
	g) Paper industry: India and Canada.	S.K.D	March
	5. Economic models:	S.K.D	
	a) Agricultural: Von Thunen	D.B	
	b) Industrial: A. Weber	D.B	
	c) Developmental: S. Myrdal	D.B	
	1. Concept of Human resources.	A.D.S	
	2. Population structure — a) age and b) sex.	A.D.S	July- October
	 3. Population composition a) economic and b) linguistic. 	A.D.S	
JGRAPHY	4. Population distribution and density: World and India.	A.C	November- December
JLATION GEOGRAPHY	5. Population growth and its related problems: India and China.	A.C	January- March
	6. Fertility and Mortality.	A.C	
B: POP	7. Migration : Types, causes and consequences	M.M	July-
GROUP B: POP	8. Theories of population growth: a) Malthus, b) Marx, c) Demographic transition	M.M	October
	9. Concept of optimum population, overpopulation and under-population. Population	M.M	November- December
	explosion and its impact on physical and cultural environment	M.M	January- March



			PAPER III			
			1. Nature, composition and layering of the atmosphere.	0.М		
			2. Factors affecting insolation & heat budget of the atmosphere.	0.M		
			3. Horizontal and vertical distribution of temperature, inversion of temperature.	0.M	July- October	
		УÐС	4. Green house effect on global environment, importance of ozone layer.	M.M		
		GROUP A: CLIMATOLOGY	5. Planetary wind system with special reference to tri- cellular model, Rossby Waves, Jet Streams	м.м		January- March
		GROUP A	6. Genesis of Monsoon and its relation with Jet Stream, El Nino and La Nina.	м.м		
	HONOURS	HONOURS	7. Processes of condensation and mechanism of precipitation: Bergereon-Fiendison, Collision- Coalescence theories.	S.K.D	November- December	
			8. Tropical and mid latitude cyclones.	A.C	January-	
			9. Climatic classification after Koppen and Thornthwaite.	A.C	March	
	0		1. Soil: Definition, factors and processes of formation.	A.S		
=	OGRAPHY	2. Concept of zonal, azonal and intra-zonal soils, profile development under different conditions	A.S	July- October		
PART II		OILG	 Podzols, Chernozems and Laterites. 	A.S		
3		GROUP B: SOIL GEOGRAPHY	3. Physical properties of soil: texture, structure, colour and moisture.	D.B	November- December	
		5	4. Chemical properties of soil: pH and organic matter.	D.B	January-	
			5. Soil erosion: types, factors and management.	D.B	March	



		 6. Principles of soil classification: Genetic and Taxonomical – with special reference to India. 7. Principles of land classification: USDA 	D.B D.B		
		1. Definitions of biosphere and biogeography. Concept of ecosystem – basic ecological principles – ecotone, communities, niche, succession, and habitat.	A.D.S	July- October	
	GEOGRAPHY	2. Ecosystem and energy: Energy sources, laws of energy exchange, food chains and food web	A.D.S		
	GROUP C: BIO-GEOGRAPHY	3. Concept of Biomes: study of Tropical rainforest, Taiga, Savannah, Desert, Tundra and Temperate grasslands.	0.М	November- December	
		4. Spatial distribution of world fauna.	A.S		
		5. Concept of Biodiversity and wildlife conservation in India, Projects and their importance	A.S	January- March	
		– Project Tiger and Man and Biosphere Programme.	A.S		
	HNIQUES	PAPER IV 1. Scales: Linear, diagonal and vernier, enlargement and reduction of map (10 Marks)	D.B		
O	IICAL TEC	2. Megascopic analysis of minerals and rocks : (10 marks)	A.D.S		
	APPLIED GEOGRAPHICAL TECHNIQUES	a) Rocks – Granite, Basalt, Dolerite, Shale, Sandstone, Limestone, Conglomerate,	A.D.S	July- October	
		Slate, Phyllite, Schist, Marble, Quartzite, Gneiss.	A.D.S]
	АРР	b) Minerals and ores – Talc, Gypsum, Calcite, Mica, Feldspar, Quartz,	A.D.S		



	Chalcopyrite, Hematite, Magnetite, Bauxite, Galena.	A.D.S		
	3. Interpretation of topographical maps of Plateau region with R.F 1: 50,000: (20 marks)	A.S		
	a) Demarcation of drainage basin (not more than 4th order, based on Strahler)	A.S		
	b) Construction of profiles: superimposed, projected, composite and long profile of	A.S	Ň	
	river (length of the river not more than 10 km).	A.S	November- December	
	c) The morphometric analysis to be done in 10 X 12cm grid	A.S	becember	
	i Drainage density (to be shown by isopleth)	A.S	-	
	ii Average slope (Wentworth's method to be shown by isopleth)	A.S		
	iii Relative Relief (to be shown by isopleth)	A.S		
	d) Road density (to be shown gridwise).	A.S		
	e) Interpretation of relief, drainage and vegetation characteristics.	A.S		
	f) Interpretation of settlement, transport and communication systems.	A.S		
	g) Relationship between physical and cultural elements (Transect Chart, not more	A.S		
	than 8 km). 4. Cartograms and thematic		January- March	
	mapping : (10 Marks)		-	
	a) Choropleth showing density of population	O.M	_	
	b) Dots and Spheres diagram showing distribution of rural and urban population.	0.М		
	 c) Proportional pie-diagrams representing economic data and landuse data. 	O.M		



		5. Projections: (20 Marks)		
		a) Concept, classification, constructions and suitability		
		b) Construction and		
		properties of:		
		Zenithal Gnomonic and Stereographic (Polar Case), Simple Conic (with one standard	A.C	July- October
		parallel), Bonne's, Sinusoidal, Polyconic, Cylindrical Equal Area and Mercator's	A.S	
		Projections.		
		6. Survey: (20 Marks)		November-
		a) Closed traverse survey by Prismatic Compass.	D.B	December
		b) Levelling by Dumpy Level with at least one change point: Drawing of profile and	D.B	January- March
		determination of gradient.		
		PAPER V		
	HONOURS GROUP A: SOCIAL, CULTURAL AND POLITICAL GEOGRAPHY	Social and Cultural Geography		
		1. Concept of culture and its components with special emphasis on India: language, religion and ethnicity.	O.M	
DURS		2. Social geography of rural India: caste structure and social stratification; tribe – Santhals and Lepcha.	0.М	July- October
PART		 3. Urban social Geography — Social ecology and social space. 	M.M	
	OCIAL	4. Rural settlements – its forms, site and situations.	M.M	
	UP A: S	Urban settlement – morphology and hierarchy.	M.M	November-
	GRO	Political Geography		December
	5	5. Concept of Political Geography and geo-politics; concept of frontier and	D.B	



		 Concept of cold war; bi- polarisation and unipolarisation. 	D.B	
		7. Political geography of India: Administrative settings of India, problem of border states,	A.S	January- March
		partition and its geo-political implications.	A.S	
	үнү	1. Concepts of regions; basis of regionalization with reference to India physical, economic and planning.	A.C	July- October
	GROUP B: REGIONAL GEOGRAPHY	 2. a) Physiographic Regions of India with special reference to Kashmir Himalaya b) Agricultural Region of India of India with special reference to Punjab- Haryana 	A.C	November- December
	GRO	c) Industrial Region of India with special reference to Mumbai-Pune industrial belt	S.K.D	January-
		3. Regional disparities in India: causes and implications	S.K.D	March
		PAPER VI		
	GRAPHY	1. Definition and nature of Geography.	A.C	
<u>s</u> k.	HY OF GEO	2. Selected contributors in the evolution of geographical thought Humboldt, Vidal de la	A.S	July- October
	LOSOF	Blache, Carl Sauer and David Harvey	A.C	
	GROUP A: PHILOSOPHY OF GEOGRAPHY	3. Major postulates: Determinism, Possibilism, Regional differentiation, location, time and	A.C	November- December
	9	space.	A.C	



		4. Changing approaches and methodology: Positivism, Quantitative Revolution, Welfare- Behavioural approach, Structural and radical	A.C A.C	January- March
		Section -1: Natural hazards and their management in the Indian Sub-continent:		
		5. Concept of hazards and disasters: Natural, quasi- natural and man-made hazards, different	A.S	July- October
		approaches in hazard management.	A.S	
	MPORARY ISSUES IN GEOGRAPHY	6. Climatic hazards: Flood, drought and cyclone mechanism – environmental impact and	A.S	
		management.	A.S	November-
		7. Geomorphic hazards: landslide, river bank erosion, coastal erosion environmental impact	A.S	December
	ZAR	and management.		
	GROUP B: CONTEMPOR	8. Edaphic and biotic hazards: Deforestation, desertification, loss of bio- diversity — environmental impact and	M.M	January- March
	E E	management.		
	GRO	Section-2: Economic and human development in the Third World		
		9. Concept of third world, concept of development and under development: Basic indicators of	A.C	July- October
		economic, human and gender development.		
		10. Problems of third world – Poverty, Population explosion, food security and hunger,	A.C	November- December



	unemployment, malnutrition and child labour.		
	 11. Globalization and sustainable development. 12. Problem of urbanization. 	A.C	January- March
	PAPER VII		
	13. Interpretation of geological maps and drawing of sections: Uniclinal, folds with	A.S	
	unconformity and igneous intrusions (20 marks)		
	14. Interpretation of Indian Daily Weather Maps – Monsoon and Post Monsoon. (15 marks)	D.B	
	15. Remote Sensing (15 marks)	r	
NIQUES	a. Basic concept of remote sensing, EMR, Band	S.K.D	July- October
HICAL TECHN	b. Types of satellites and sensors with special reference to IRS series of satellites;	S.K.D	
GRAPI	types of resolutions and their applicability	S.K.D	
APPLIED GEOGRAPHICAL TECHNIQUES	c. Principles of preparing standard false colour composite, landuse and land cover	S.K.D	
	mapping from standard FCC with header information.	S.K.D	
	d. Interpretation of aerial photograph – basic principles of aerial photography, side	D.B	
	lap, end lap, flight line, air base, fudicial marks, .Principle Point, Nadir Point,	D.B	November- December
	Conjugate Principal Point,	D.B	
	e. Preparation of aerial photo mosaics, demarcation of effective area, extraction of	D.B	



		cultural and physiographic features within this area with preparation of interpretation key.	D.B		
		16. Geographical Information System. (15 marks)	D.B		
		a. Concept of GIS and its applicability: Spatial and attribute data, raster and vector	D.B		
		data structure and concept of information layers in GIS.	D.B		
		b. Georeferencing of scanned maps and ascribing projection (Polyconic/ UTM)	D.B	January- March	
		c. Digitisation of point, line and polygon layers; Attachment of appropriate attribute	D.B		
		tables. d. Preparation of thematic maps from attached data: choropleth, pie chart and bar	D.B		
		graphs.	D.B		
		17. Field Report	A.D.S A.S	July- March	Project
		PAPER VIII	7.5		
		1. Nature of statistical data:			
Q	S	discrete, continuous, parametric and non- parametric data.	A.D.S		
29	Technique	2. Tabulation and classification of statistical data.	A.D.S	July- October	
	Group-A: Statistical Techniques	3. Frequency distribution: histogram, frequency polygon, ogive, normal and skewed	A.D.S		
	:V-dno	distribution, measures of skewness.	A.D.S		
	ש	4. Measures of central			



	mean deviation, quartile deviation, semi-quartile range, standard deviation and co-efficient of variation.	A.D.S A.D.S	January- March
	Section-A : Representation of climatic and hydrological data of the Indian Sub- continent.		
	1. a) Preparation and Interpretation of a climatic chart showing relationship between rainfall,	A.S	
(5	temperature, pressure and relative humidity of a station for three months, preparation and	A.S	July- November
(50Marks	interpretation of Taylor's Climograph and Hythergraph.	A.S	
n Geography (b) Preparation of station models for different meteorological stations of India with the help of	A.S	
Group-B: Contemporary issues in Geography (50Marks)	Synoptic chart. 2. Preparation and interpretation of rating curves, hydrographs and unit hydrographs of rivers	A.S	December- March
Group-B: Cont	flowing through the Indian Sub-continent. Section-B: Economic and Human Development in Third World.		
	3. Computation of Human and Gender Development Index and ranking of	A.C	July- October
	countries/states/districts based on HDI and GDI.	A.C	October
	4. Preparation of questionnaire schedule for assessment of development and for perception	A.C	November- December
	survey. 5. Measures of Spatial and size-class distribution.	A.C	January- March

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	6. a) Dominant-distinctive function.	A.C	
	b) Rank-size rule.	A.C	
	c) Lorenz curve.	A.C	

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Year	(Hons/General)	Syllabu Module/U	100	c	No. of lectur es (Hours)	Teachers	Distribution	Project/ Student Seminar (if any)
			Paper I		0			
			1. Structure of t	he earth		SKD	July- August	
		Group A: Geomorphology	2. Influence of a topography: Lin and Granite			SKD	July- August	
	_		3. Broad outline tectonics and m crustal formatio fold mountains trenches and is	najor ons –		SKD	September	
Part	Genera		4. Evolution of landforms unde process, Norma of Erosion.			SKD	October- November	
	Ge		5. Processes of formation of er and depositiona landforms: coas aeolian	al		SKD	December - January	
		<u>ک</u>	1. Insolation an Budget.	d Heat		AC	July- August	
		Group B: Climatology	2. Horizontal ar Vertical distribu temperature an pressure.	ition of		AC	July- August	
			3. Greenhouse	effect.		AC	September	



		4. Atmospheric disturbances: Tropical and Mid-latitude cyclones.	AC	October- November	
		5. Characteristics of Monsoonal rainfall	AC	December - January	
		6. Climatic classification after Kőppen.	AC	January	
		1. Factors of soil formation.	AC	July- August	
		2. Development of an ideal soil profile and eluviation and illuviation	AC	July- August	
	Group C: Biogeography	3. Properties of soil: Physical (texture, structure) and Chemical (pH, organic matter).	AC	September	
	p C: Biog	4. Concept of zonal, azonal and intrazonal soils	AC	October- November	
	Grot	5. Concept of Ecosystem and Biomes – i) Tropical Rainforest, ii) Hot Desert	AC	December - January	
		6. Plant types and distribution (Halophite, Xerophytes, Hydrophite, Mesophite)	AC	January	
		Paper II			
	ocial	1. Factors of growth and distribution of world population.	DB	July- August	
t II eral	Group A: Population and Social Geography	2. Fertility, mortality and age-sex structure of population with reference to India.	DB	July- August	
Part II Genera	o A: Popu Geo	3. Migration: Types, causes and consequences.	DB	September	
	Group	4. Contemporary Social issues: Literacy and poverty.	DB	October- November	



		1. Sectors of the economy: primary, secondary, tertiary and quaternary: Changing emphasis through time	AC	July- August	
		2. Types of agriculture:	AC	July- August	
	ž	a) Shifting cultivation of India.	AC	September	
	graph	b) Intensive subsistence rice farming in India.	AC	October- November	
	Group B: Economic Geography	up B: Economic Geo	c) Plantation farming in India:Tea and Coffee	AC	October- November
			3. Scales of production: cottage, small scale and large-scale industries — general characteristics and examples	AC	December - January
		4. Location, problems and prospects of Indian industries	AC	December - January	
		a) Cotton textile industry.	AC	January	
		b) Heavy engineering industry: locomotive.	AC	January	
		c) Petroleum refining industry	AC	January	
		1. Regions of India:	DB		
	rental	a) Concept of regions: formal and functional	DB	July- August	
	GROUP-C: Regional Geography And Environmental Issues Of India	b) Broad physiographic regions of India: special reference to Deccan Trappe	DB	July- August	
		c) Agricultural Regions of India: special reference to Punjab- Haryana wheat belt,	DB	September	
	: Regional G Issı	d) Industrial Regions of India: special reference to Asansol-Durgapur industrial belt.	DB	October- November	
	GROUP-C	2. Indian monsoon and its impact: problem of flood, drought and cyclone.	DB	October- November	



		3. Forest resources of India: issues concerning deforestation and social forestry.	DB	December - January	
		4. Causes and consequences of soil erosion in India.	DB	December - January	
		Paper III			
		1. Scales: Concept of scales, drawing of linear scales.	AC	July- September	
	GRAPHY	2. Projections: Concept and major classification. Construction may be done graphically or	AS	July- August	
	CARTC	a) Simple conic with one standard parallel	AC	August	
	GROUP-A: CARTOGRAPHY	b) Cylindrical Equal Area	SKD	September	
		c) Polar Zenithal Gnomonic.	SKD	September	
	GR	3. Cartograms: Choropleth, pie-graphs and square diagrams with proportional scales.	ом	October- November	
		1. Basis of numbering and scale of Survey of India Topographical sheets.	ом	October- November	
	terpretation	2. Interpretation of 1:50,000 topographical sheets under the following heads:	ОМ	November	
	GROUP-B: Map Interpretation	I. Interpretation of relief and drainage from topographical maps with profiles and sketches.	ом	December - January	
	GRI	II. Interpretation of communication and settlement from topographical maps with sketches.	ом	December - January	



	III. Relationship between physical and cultural features with the help of transect chart.	ом	December - January	
	1. Nature and classification of data.	ОМ	July- September	
GROUP-C: Statistics	2. Process of tabulation and graphical representation: histogram, frequency polygon, cumulative	ом	July- August	
Ino	frequency curve.	ОМ	August	
В	3. Measures of central tendency: mean, median and mode.	ОМ	September	
GROUP-D: FIELD REPORT	Field Report on either a rural mouza or an urban ward (to be conducted during field excursion)	AS AC	October- November	Project

		Paper IV		
		Section I: Land use and settlement Geography (30 Marks)		
Part III Genera	, ZAL	1. Concept and attributes of land.	ОМ	July- September
en	DRITIC IRAPH	2. Objectives and principles of land use.	ОМ	July- August
a ğ	GROUP- A: THEORITICAL APPLIED GEOGRAPHY	3. Factors influencing land use and land categories:	ОМ	August
	PPL	a) Agricultural land use.	OM	September
	GR	b) Non-agricultural landuse.	ОМ	September

	 4. Rural settlements: evolution, nature and effect of physical environment, 5. Urban settlements: definition, morphology and function. 		DM DM	October- November October- November	
	Section II: Remote Sensing and Geographical Information System	S	iKD	July- September	
	1. Concept of Remote Sensing, different methods of remote sensing – aerial photo and satellite imagery.	S	iKD	July- September	
	2. Aerial Photo: Types and interpretation keys; concept of principal point, fudicial marks, flight line, photo	s	SKD	December - January	
	overlap. 3. IRS images: Sensors, different types of resolution and their applicability.	S	KD	December - January	
	4. Concept of GIS and its applicability: Spatial and attribute data, raster and vector data structure and concept of GIS	S	KD	December - January	
GROUP- A: PRACTICAL APPLIED GEOGRAPHY	1. Interpretation of Daily Weather Maps published by India Meteorological Department – Monsoon Season		DB	July- January	
P- A: PR, GEOG	2. Preparation of thematic maps:i) Flow diagram and ii)				
GROUI	Determination of Detour Index		AC	September- October	



	3. Aerial ph interpretat identification physical an features. (7	ion for on of broad d cultural	SKD	November- January
Semester	(Hons /General)	Internal Assessment (Tentative time)		University Examination
Part II	Hons./ General	Test Exam- 2 nd week January, 2019	of	May, 2019 (Tentative)
Part II	Hons./ General	Test Exam- 2 nd week January, 2019	of	April, 2019 (Tentative)
Part III	Hons./ General	Test Exam- 2 nd week January, 2019	of	March, 2019 (Tentative)
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ACADEMIC CALENDAR Department of GEOGRAPHY Session: 2018- 2019 Project/ (Hons No. of Student Syllabus Distribution Semester /Gener Topic lectures Teachers Module/Unit Seminar al) (Hours) (if any) For ODD Semesters Paper Code: GEOACOR01T Unit I: 60 Earth's tectonic and Geotectonic structural evolution D.B July- August with reference to geological time scale. Earth's interior with special reference to A.C July- August seismology. Plate Tectonics as a unified theory of global tectonics: August-0.M Processes and September landforms at plate margins and hotspots. Honours SEMESTER Unit II: Degradational August-Geomorphol processes: September Weathering, mass A.S ogy wasting and resultant landforms. Development of river Septembernetwork and October A.D.S landforms on folded structures. Glacial and glacio-October-November fluvial processes and M.M landforms. Aeolian and fluvio-Octoberaeolian processes and A.D.S November landforms. Models on landscape Decemberevolution: Views of January S.K Davis and Hack



	Paper C	ode: GEOAC	OR01P	
Geotect onic& Geomor phology Lab.	Megascopic identification of (a) mineral samples: Bauxite, calcite, chalcopyrite, galena, hematite, mica, quartz, tourmaline; and (b) rock samples: Granite, basalt, laterite, sandstone, conglomerate, slate, phyllite, schist, gneiss, marble Interpretation of geological maps with unconformity and intrusions on uniclinal	60	A.D.S	July- Januar Y July- Januar Y
	structure			
	· · · ·	Code: GEOA	COR02T	1
Cartogra phic Techniq	Maps: Classification and types. Components of a map	60	M.M	July- August
ues	Concept and application of scales: Plain, comparative and diagonal		D.B	Septembe rto November
	Survey of India topographical maps: Reference scheme of old and open series. Information on the margin of maps		A.S	Septembe rto November
	Coordinate systems: Polar and rectangular		D.B	November -December
Ť	Concept of generating globe and UTM projection		A.D.S	December -January
	Map projections: Classification, properties and uses		S.K & A.C	December -January
	Paper Code: GEC	DACOR02P		· · ·
	Graphical construction of scales: Plain, comparative and diagonal		D.B	Septembe rto November

Cartographic	Construction of	60		Novemb	er-
Techniques	projections: Polar			Decemb	
	Zenithal				-
	Stereographic,		A.C, S.K		
	Bonne's, Cylindrical		A.D.S	5	
	Equal Area, and				
	Mercator's				
	Delineation of			Decemb	er-
	drainage basin from			January	
	Survey of India				
	topographical map,				
	relative relief map,				
	slope map		A.S		*
	(Wentworth), and				
	stream ordering				
	(Strahler) on a				
	drainage basin.				
	Correlation between			Decemb	er-
	physical and cultural			January	
	features from Survey			, ,	
	of India topographical		0.M		
	maps using transect				
	chart.				
				_	
	For EVE			5	
	Paper	Code: GEO	ACORUSI		
				1	
Unit I:	Nature, scope and		S.K	February	
Unit I: Nature and	recent trends.		S.K	February	
	recent trends. Elements of Human		S.K	February	
Nature and	recent trends. Elements of Human Geography				
Nature and	recent trends. Elements of Human Geography Approaches to Human		S.K S.K	February February	
Nature and	recent trends. Elements of Human Geography Approaches to Human Geography;				
Nature and	recent trends. Elements of Human Geography Approaches to Human Geography; Environmental		S.K	February	
Nature and	recent trends. Elements of Human Geography Approaches to Human Geography; Environmental Concept and				
Nature and	recent trends. Elements of Human Geography Approaches to Human Geography; Environmental Concept and classification of race		S.K S.K	February March	
Nature and	recent trends. Elements of Human Geography Approaches to Human Geography; Environmental Concept and classification of race Cultural regions		S.K	February	
Nature and	recent trends. Elements of Human Geography Approaches to Human Geography; Environmental Concept and classification of race		S.K S.K	February March	
Nature and Principles	recent trends. Elements of Human Geography Approaches to Human Geography; Environmental Concept and classification of race Cultural regions		S.K S.K S.K	February March March	
Nature and Principles	recent trends. Elements of Human Geography Approaches to Human Geography; Environmental Concept and classification of race Cultural regions (language and religion) Evolution of human		S.K S.K	February March	
Nature and Principles	recent trends. Elements of Human Geography Approaches to Human Geography; Environmental Concept and classification of race Cultural regions (language and religion) Evolution of human societies: Hunting and		S.K S.K S.K	February March March	
Nature and Principles	recent trends. Elements of Human Geography Approaches to Human Geography; Environmental Concept and classification of race Cultural regions (language and religion) Evolution of human societies: Hunting and food gathering,	90	S.K S.K S.K	February March March	
Nature and Principles	recent trends. Elements of Human Geography Approaches to Human Geography; Environmental Concept and classification of race Cultural regions (language and religion) Evolution of human societies: Hunting and food gathering, pastoral nomadism,	90	S.K S.K S.K	February March March	
Nature and Principles	recent trends. Elements of Human Geography Approaches to Human Geography; Environmental Concept and classification of race Cultural regions (language and religion) Evolution of human societies: Hunting and food gathering, pastoral nomadism, subsistence farming	90	S.K S.K S.K	February March March	
Nature and Principles	recent trends. Elements of Human Geography Approaches to Human Geography; Environmental Concept and classification of race Cultural regions (language and religion) Evolution of human societies: Hunting and food gathering, pastoral nomadism,	90	S.K S.K S.K	February March March	

			Population growth and distribution, demographic transition		M.M, A.D. S	March
			Types and patterns of rural settlements		O.M	March- April
			Morphology of urban settlements		0.M	April
er.	S		Paper (Code: GEC	ACOR04T	
ST	20	Cartograms	Concepts of rounding,		D.B	February-
Semester	Honours	and Thematic Mapping	scientific notation, logarithm and anti- logarithm, natural and			March
n	_		log scales		٨٥	Marah
			Diagrammatic representation of data: Line, Bar, Isopleths	60	A.S	March
			Representation of		A.S	March-
			socio-economic data:			April
			Dots and spheres,			
			proportional circles			
			and Choropleth Bearing: Magnetic and		A.D.	February
			true, whole-circle and reduced		S	
			Basic concepts of		D.B	March-
			surveying and survey equipment: Prismatic			May
			Compass, Dumpy			
			Level, Theodolite			
			-	Code: GEO	ACOR04P	
		Cartograms	Thematic maps:			
	R	and Thematic Mapping lab				
			 Choropleth showing density of population 		A.S	February
Ŧ			 Dots and 		A.S	March
			Spheres diagram			
			showing distribution of rural and urban population.	60		
			 Proportional pie- diagrams representing economic data and land use data 		A.S	March
		1			I	

		prism Profile	erse survey using atic compass, e survey using y Level	D.B	March- May	
						Project/
Year	(Hons/General)	Syllabus Module/Unit	Торіс	Teachers	Distribution	Student Seminar (if any)
			PAPER III			
			1. Nature, composition and layering of the atmosphere.	О.М		
	HONOURS GROUP A: CLIMATOLOGY	2. Factors affecting insolation & heat budget of the atmosphere.	0.М	July-		
			3. Horizontal and vertical distribution of temperature, inversion of temperature.	vertical Oct mperature, O.M	October	
		: CLIMATOLOGY	4. Green house effect on global environment, importance of ozone layer.	M.M	January- March	
			5. Planetary wind system with special reference to tri- cellular model, Rossby Waves, Jet Streams	М.М		
		6. Genesis of Monsoon and its relation with Jet Stream, El Nino and La Nina.	M.M			
PART II		7. Processes of condensation and mechanism of precipitation: Bergereon-Fiendison, Collision-	S.K.D	November- December		
		Coalescence theories 8. Tropical and mid latitude cyclones.	A.C	January-		
			9. Climatic classification after Koppen and Thornthwaite.	A.C	March	
		щ род щ		-	1	

]	1. Soil: Definition, factors and processes of formation.	A.S		
	2. Concept of zonal, azonal and intra-zonal soils, profile development under different conditions	A.S	July- October	
	 Podzols, Chernozems and Laterites. 	A.S		
	3. Physical properties of soil: texture, structure, colour and moisture.	D.B	November- December	
	4. Chemical properties of soil: pH and organic matter.	D.B		,
	5. Soil erosion: types, factors and management.	D.B		
	6. Principles of soil classification: Genetic and Taxonomical – with special reference to India.	D.B	January- March	
	7. Principles of land classification: USDA	D.B		
	1. Definitions of biosphere and biogeography. Concept of ecosystem – basic ecological principles – ecotone, communities, niche, succession, and habitat.	A.D.S	July- October	
GEOGRAPHY	2. Ecosystem and energy: Energy sources, laws of energy exchange, food chains and food web	A.D.S		
GROUP C: BIO-GEOGRAPHY	3. Concept of Biomes: study of Tropical rainforest, Taiga, Savannah, Desert, Tundra and Temperate grasslands.	0.М	November- December	
	4. Spatial distribution of world fauna.	A.S		
	5. Concept of Biodiversity and wildlife conservation in India, Projects and their importance	A.S	January- March	
	 Project Tiger and Man and Biosphere Programme. 	A.S		

	٦	1	I	· · · · ·	
		PAPER IV 1. Scales: Linear, diagonal and vernier, enlargement and reduction of map (10 Marks)	D.B		
		2. Megascopic analysis of minerals and rocks : (10 marks)	A.D.S		
		a) Rocks – Granite, Basalt, Dolerite, Shale, Sandstone, Limestone, Conglomerate,	A.D.S	July- October	
		Slate, Phyllite, Schist, Marble, Quartzite, Gneiss.	A.D.S		
		b) Minerals and ores – Talc, Gypsum, Calcite, Mica, Feldspar, Quartz,	A.D.S		
	JES	Chalcopyrite, Hematite, Magnetite, Bauxite, Galena.	A.D.S		
	APPLIED GEOGRAPHICAL TECHNIQUES	3. Interpretation of topographical maps of Plateau region with R.F 1: 50,000: (20 marks)	A.S		
	GRAPHIC	a) Demarcation of drainage basin (not more than 4th order, based on Strahler)	A.S		
	APPLIED GEO	b) Construction of profiles: superimposed, projected, composite and long profile of	A.S		
			river (length of the river not more than 10 km).	A.S	November-
		c) The morphometric analysis to be done in 10 X 12cm grid	A.S	December	
		i Drainage density (to be shown by isopleth)	A.S		
		ii Average slope (Wentworth's method to be shown by isopleth)	A.S		
		iii Relative Relief (to be shown by isopleth)	A.S		
		d) Road density (to be shown gridwise).	A.S		
		e) Interpretation of relief, drainage and vegetation characteristics.	A.S	January- March	

			 f) Interpretation of settlement, transport and communication systems. 	A.S	
			g) Relationship between physical and cultural elements (Transect Chart, not more	A.S	
			than 8 km).		
			4. Cartograms and thematic mapping : (10 Marks)		
			a) Choropleth showing density of population	0.М	
L			b) Dots and Spheres diagram showing distribution of rural and urban population.	0.М	
			c) Proportional pie-diagrams representing economic data and landuse data.	0.М	
			5. Projections: (20 Marks)		
			a) Concept, classification, constructions and suitability		
			b) Construction and properties of:	A.C	
			Zenithal Gnomonic and Stereographic (Polar Case), Simple Conic (with one standard		July- October
			parallel), Bonne's, Sinusoidal, Polyconic, Cylindrical Equal Area and Mercator's	A.S	
			Projections.		
			6. Survey: (20 Marks)		November-
			a) Closed traverse survey by Prismatic Compass.	D.B	December
6			b) Levelling by Dumpy Level with at least one change point: Drawing of profile and determination of gradient.	D.B	January- March
	I	L			1
	S	, L	PAPER V		
	N	SOCIA L AND CAL HY (60	Social and Cultural Geography		
PART	HONOURS	GROUP A: SOCIAL CULTURAL AND POLITICAL GEOGRAPHY (60	1. Concept of culture and its components with special emphasis on India: language, religion and	0.М	July- October
			8		

	ethnicity. 2. Social geography of rural India: caste structure and social stratification; tribe – Santhals and Lepcha.	O.M	
	3. Urban social Geography — Social ecology and social space.	M.M	
	4. Rural settlements – its forms, site and situations.	M.M	
	Urban settlement – morphology and hierarchy.	М.М	November-
	Political Geography 5. Concept of Political Geography and geo-politics; concept of frontier and boundary	D.B	December
	6. Concept of cold war; bi- polarisation and unipolarisation.	D.B	
	7. Political geography of India: Administrative settings of India, problem of border states,	A.S	January- March
	partition and its geo-political implications.	A.S	
(40 Marks)	1. Concepts of regions; basis of regionalization with reference to India physical, economic and planning.	A.C	July- October
GROUP B: REGIONAL GEOGRAPHY (40 Marks)	 2. a) Physiographic Regions of India with special reference to Kashmir Himalaya b) Agricultural Region of India of India with special reference to Punjab- Haryana 	A.C	November- December
GROUP B: F	c) Industrial Region of India with special reference to Mumbai-Pune industrial belt	S.K.D	January- March
	3. Regional disparities in India: causes and implications	S.K.D	Warti

	I	I	
	PAPER VI		
	1. Definition and nature of Geography.	A.C	
40 MARKS)	 Selected contributors in the evolution of geographical thought Humboldt, Vidal de la 	A.S	July- October
АРНУ (Blache, Carl Sauer and David Harvey	A.C	
GROUP A: PHILOSOPHY OF GEOGRAPHY (40 MARKS)	3. Major postulates: Determinism, Possibilism, Regional differentiation, location, time and	A.C	November- December
He He	space.	A.C	
DP A: PHILOSO	4. Changing approaches and methodology: Positivism, Quantitative Revolution, Welfare-	A.C	
GROL	Behavioural approach, Structural and radical approach	A.C	January- March
ks)			
(60 marks)	Section -1: Natural hazards and their management in the Indian Sub-continent:		
GEOGRAPHY	5. Concept of hazards and disasters: Natural, quasi- natural and man-made hazards, different	A.S	July- October
	approaches in hazard management.	A.S	
APORARY ISS	6. Climatic hazards: Flood, drought and cyclone mechanism – environmental impact and	A.S	
HEN HEN	management.	A.S	November-
GROUP B: CONTEMPORARY ISSUES IN GEOGRAPHY	7. Geomorphic hazards: landslide, river bank erosion, coastal erosion environmental impact	A.S	December
σ	and management.		

	8. Edaphic and biotic hazards: Deforestation, desertification, loss of bio- diversity — environmental impact and management.	M.M	January- March	
	Section-2: Economic and human development in the Third World			
	9. Concept of third world, concept of development and under development: Basic indicators of	A.C	July- October	
	economic, human and gender development.			
	10. Problems of third world – Poverty, Population explosion, food security and hunger, unemployment, malnutrition and child labour.	A.C	November- December	
	11. Globalization and sustainable development.12. Problem of urbanization.	A.C	January- March	
	PAPER VII			
APPLIED GEOGRAPHICAL TECHNIQUES	13. Interpretation of geological maps and drawing of sections: Uniclinal, folds with unconformity and igneous intrusions (20 marks)	A.S		
D GEOGRAPH	14. Interpretation of Indian Daily Weather Maps – Monsoon and Post Monsoon. (15 marks)	D.B	July- October	
APPLIE	15. Remote Sensing (15 marks)			
	a. Basic concept of remote sensing, EMR, Band	S.K.D		

b. Types of satellites and sensors with special reference to IRS series of satellites;	S.K.D		
types of resolutions and their applicability	S.K.D		
c. Principles of preparing standard false colour composite, landuse and land cover	S.K.D		
mapping from standard FCC with header information.	S.K.D		
d. Interpretation of aerial photograph – basic principles of aerial photography, side	D.B		
lap, end lap, flight line, air base, fudicial marks, .Principle Point, Nadir Point,	D.B		
Conjugate Principal Point,	D.B	November-	
e. Preparation of aerial photo mosaics, demarcation of effective area, extraction of	D.B	December	
cultural and physiographic features within this area with preparation of	D.B		
interpretation key. 16. Geographical Information System. (15 marks)	D.B		
a. Concept of GIS and its applicability: Spatial and attribute data, raster and vector	D.B		
data structure and concept of information layers in GIS.	D.B		
 b. Georeferencing of scanned maps and ascribing projection (Polyconic/ UTM) 	D.B	January- March	
 c. Digitisation of point, line and polygon layers; Attachment of appropriate attribute tables. 	D.B		
d. Preparation of thematic maps from attached data:	D.B		

		choropleth, pie chart and bar graphs. 17. Field Report PAPER VIII	D.B A.D.S A.S	July- March	Project
		1. Nature of statistical data: discrete, continuous, parametric and non- parametric data.	A.D.S		
	Marks)	2. Tabulation and classification of statistical data.	A.D.S	July- October	
	ıniques (50	3. Frequency distribution: histogram, frequency polygon, ogive, normal and skewed	A.D.S		
	al Tech	distribution, measures of skewness.	A.D.S	-	
	Group-A: Statistical Techniques (50 Marks)	4. Measures of central tendency: mean, median, mode, partition values : quartile, decile,	A.D.S	November- December	
	Ę	percentile. 5. Measures of dispersion: mean deviation, quartile deviation, semi-quartile range, standard	A.D.S	January- March	
		deviation and co-efficient of variation.	A.D.S		
2212	n Geography	Section-A : Representation of climatic and hydrological data of the Indian Sub- continent.			
	Group-B: Contemporary issues in Geography (50Marks)	1. a) Preparation and Interpretation of a climatic chart showing relationship between rainfall,	A.S		
	-B: Contempc (5	temperature, pressure and relative humidity of a station for three months, preparation and	A.S	July- November	
	Group.	interpretation of Taylor's Climograph and Hythergraph.	A.S		

	b) Preparation of station models for different meteorological stations of India with the help of Synoptic chart.	A.S	
	2. Preparation and interpretation of rating curves, hydrographs and unit hydrographs of rivers flowing through the Indian	A.S	December- March
	Sub-continent. Section-B: Economic and Human Development in Third World.		
	3. Computation of Human and Gender Development Index and ranking of	A.C	July- October
	countries/states/districts based on HDI and GDI.	A.C	October
	4. Preparation of questionnaire schedule for assessment of developmen and for perception survey.		November- December
	5. Measures of Spatial and size-class distribution.	A.C	
	6. a) Dominant-distinctive function.	A.C	January- March
	b) Rank-size rule.	A.C]
	c) Lorenz curve.	A.C	
- PAR			

		<u> </u>	Paper II			L
		òocial	1. Factors of growth and distribution of world population.	DB	July- August	
		Group A: Population and Social Geography	2. Fertility, mortality and age-sex structure of population with reference to India.	DB	July- August	
		p A: Popu Geo	3. Migration: Types, causes and consequences.	DB	September	
		Groul	4. Contemporary Social issues: Literacy and poverty.	DB	October- November	
						<u> </u>
			1. Sectors of the economy: primary, secondary, tertiary and quaternary: Changing emphasis through time	AC	July- August	
_	e	General mic Geography	2. Types of agriculture:	AC	July- August	
セ	ler		a) Shifting cultivation of India.	AC	September	
Part	Ger		b) Intensive subsistence rice farming in India.	AC	October- November	
	-	ic Geo	c) Plantation farming in India:Tea and Coffee	AC	October- November	
		Group B: Econom	3. Scales of production: cottage, small scale and large-scale industries — general characteristics and examples	AC	December - January	
O E P	Gro	4. Location, problems and prospects of Indian industries	AC	December - January		
			a) Cotton textile industry.	AC	January	
			b) Heavy engineering industry: locomotive.	AC	January	
			c) Petroleum refining industry	AC	January	
				 ~ ~ ~		
		GROUP- C:REGIO NAL	1. Regions of India: a) Concept of regions:	DB	July-	
		N N N N N N N N N N N N N N N N N N N	formal and functional	DB	August	

	b) Broad physiographic regions of India: special reference to Deccan Trappe	DB	July- August	
	c) Agricultural Regions of India: special reference to Punjab- Haryana wheat belt,	DB	September	
	d) Industrial Regions of India: special reference to Asansol-Durgapur industrial belt.	DB	October- November	
	2. Indian monsoon and its impact: problem of flood, drought and cyclone.	DB	October- November	
	3. Forest resources of India: issues concerning deforestation and social forestry.	DB	December - January	
	4. Causes and consequences of soil erosion in India.	DB	December - January	
	Paper III	 		
	1. Scales: Concept of scales, drawing of linear scales.	AC	July- September	
GROUP-A:CARTOGRAPHY	2. Projections: Concept and major classification. Construction may be done graphically or	AS	July- August	
ARTO	a) Simple conic with one standard parallel	AC	August	
-A:C	b) Cylindrical Equal Area	SKD	September	
ROUP	c) Polar Zenithal Gnomonic.	SKD	September	
	3. Cartograms: Choropleth, pie-graphs and square diagrams with proportional scales.	ОМ	October- November	
GROUP- B:MAP NTERPRET	1. Basis of numbering and scale of Survey of India Topographical sheets.	ОМ	October- November	

		2. Interpretation of 1:50,000 topographical sheets under the following heads:	ОМ	November	
		I. Interpretation of relief and drainage from topographical maps with profiles and sketches.	ОМ	December - January	
		II. Interpretation of communication and settlement from topographical maps with sketches.	ОМ	December - January	
		III. Relationship between physical and cultural features with the help of transect chart.	ОМ	December - January	
	OUP-C: STATISTICS	1. Nature and classification of data.	ОМ	July- September	
		2. Process of tabulation and graphical representation: histogram, frequency polygon, cumulative	ОМ	July- August	
		frequency curve.	ОМ	August	
	GRO	3. Measures of central tendency: mean, median and mode.	ОМ	September	
	GROUP-D: FIELD REPORT	Field Report on either a rural mouza or an urban ward (to be conducted during field excursion)	AS AC	October- November	Project
		Paper IV			
La					
Part III Genera		Section I: Land use and settlement Geography (30 Marks)			

I	1. Concept and		July-	
	attributes of land.	OM	September	
	2. Objectives and principles of land use.	ОМ	July- August	
	3. Factors influencing land use and land categories:	ОМ	August	
	a) Agricultural land use.	OM	September	
	b) Non-agricultural landuse.	ОМ	September	
	4. Rural settlements: evolution, nature and effect of physical environment,	ом	October- November	
ЕОGRAPHY	5. Urban settlements: definition, morphology and function.	ом	October- November	
APPLIED G	Section II: Remote Sensing and Geographical Information System	SKD	July- September	
ROUP- A: THEORITICAL APPLIED GEOGRAPHY	1. Concept of Remote Sensing, different methods of remote sensing – aerial photo and satellite imagery.	SKD	July- September	
GROUP-	2. Aerial Photo: Types and interpretation keys; concept of principal point, fudicial marks, flight line, photo	SKD	December - January	
	overlap.			
~	3. IRS images: Sensors, different types of resolution and their applicability.	SKD	December - January	
	4. Concept of GIS and its applicability: Spatial and attribute data, raster and vector data structure and concept of GIS	SKD	December - January	

GROUP- A: PF	3. Aerial photo interpretation for identification of broad physical and cultural features. (7 Marks)	SKD	November- January	
PRACTICAL APPLIED	i) Flow diagram and ii) Determination of Detour Index	AC	September- October	
APPL	2. Preparation of thematic maps:			
IED GEOGRAPHY	1. Interpretation of Daily Weather Maps published by India Meteorological Department – Monsoon Season	DB	July- January	

Semester	(Hons /General)	Internal Assessment	University
		(Tentative time)	Examination
		6	
	Hons.	1 st Internal Assessment-2 nd	January, 2022
I		Week of September,2018	(Tentative)
		2 nd Internal Assessment-2 nd	
		Week of November, 2018	
	Hons.	1st Internal Assessment-3rd	July, 2022 (Tentative)
		Week of April, 2019	
		2nd Internal Assessment-2nd	
		Week of May, 2019	
Part II	Hons./	Test Exam- 2 nd week of	April, 2019 (Tentative)
raitii	General	January, 2019	

Part III	Hons./ General	Test Exam- 2 nd week of January, 2019	March, 2019 (Tentative)
		20	

ACADEMIC CALENDAR

DEPARTMENT OF GEOGRAPHY

Session: 2019- 2020

Semester	(Hons /Gener al)	Syllabus Module/Unit	Торіс	No. of lectures (Hours)	Teachers	Distribution	Project/ Student Seminar (if any)
			For OD) Seme	sters		
			Paper	Code: GEOA	COR01T		
		Unit I: Geotectonic	Earth's tectonic and structural evolution with reference to geological time scale.	60	D.B	July- August	
	SEMESTER I Honours		Earth's interior with special reference to seismology.		A.C	July- August	
L L			Plate Tectonics as a unified theory of global tectonics: Processes and landforms at plate margins and hotspots.		0.M	August- September	
SEMESTE		Unit II: Geomorphol ogy	Degradational processes: Weathering, mass wasting and resultant landforms.		A.S	August- September	
			Development of river network and landforms on folded structures.		A.D.S	September- October	
			Glacial and glacio- fluvial processes and landforms.		M.M	October- November	
			Aeolian and fluvio- aeolian processes and landforms.		A.D.S	October- November	
			Models on landscape evolution: Views of Davis and Hack		S.K	December- January	

F	Paper Code: GEOACOR01P								
F	Geotect	Megascopic	60		July-				
	onic&	identification of (a)			Januar				
	Geomor	mineral samples:			у				
	phology	Bauxite, calcite,			,				
	Lab.	chalcopyrite, galena,							
		hematite, mica, quartz,							
		tourmaline; and (b)		A.D.S & O.M					
		rock samples: Granite,							
		basalt, laterite,							
		sandstone,							
		conglomerate, slate,							
		phyllite, schist, gneiss,							
		marble							
		Interpretation of			July-				
		geological maps with			Januar				
		unconformity and		A.S	y				
		intrusions on uniclinal		74.5	у				
		structure							
-									
		Paper	Code: GEOA	COR02T					
	Cartogra	Maps: Classification	60						
	phic	and types.		M.M					
	Techniq	Components of a map			July- August				
	ues	Concept and							
		application of scales:		D.B	Septembe				
		Plain, comparative and		0.0	rto				
		diagonal			November				
		Survey of India							
		topographical maps:							
		Reference scheme of		A.S					
		old and open series.		A.5	Septembe				
		Information on the			rto				
		margin of maps			November				
		Coordinate systems:			November				
		Polar and rectangular		D.B	-December				
		Concept of generating							
		globe and UTM		A.D.S	December				
		projection			-January				
		Map projections:							
		Classification,		S.K & A.C	December				
		properties and uses			-January				
F		Paper Code: GEC	DACOR02P		· · · · ·				
F		Graphical construction							
		of scales: Plain,		D.B	Septembe				
		comparative and		0.0	rto				
		diagonal			November				

	Cartographic	Construction of	60		November-
	Techniques	projections: Polar			December
		Zenithal Stereographic,		A.C, S.K &	
		Bonne's, Cylindrical		A.D.S	
		Equal Area, and			
		Mercator's			
		Delineation of			December-
		drainage basin from			January
		Survey of India			sundary
		topographical map,			
		relative relief map,			
		slope map		A.S	
		(Wentworth), and			
		stream ordering			
		(Strahler) on a			
		drainage basin.			
		Correlation between			December-
		physical and cultural			January
		features from Survey		0.M	
		of India topographical		_	
		maps using transect chart.			
		Paper Code: GE	OACOR05T		
	Unit I:	Nature, composition			
	Elements of	and layering of the		O.M	July-August
	the	atmosphere		0.101	
	Atmosphere	Insolation: controlling			
		factors. Heat budget		O.M	August-
		of the atmosphere		_	September
		Temperature:			
		horizontal and vertical			
		distribution. Inversion		D.B	
JEINIEJI EN III Honours		of temperature: types,		0.0	
2 = jā		causes and			September-
		consequences			October
J J		Greenhouse effect and			
		importance of ozone		A.C	November-
		layer			December
	Unit II:	Condensation: Process			July-August
	Atmospheric	and forms. Mechanism			July August
	Phenomena	of precipitation:			
	and Climatic	Bergeron-Findeisen		S.K	
	Classification	theory			
1	1				1 1

Interpretation of daily weather map of India: Monsoon Construction and interpretation of	Code: GEOA	A.S A.D.S A.D.S M.M M.M A.S COR05P D.B	August- September September- October November- December November- December December December - January December - January July- December
instability; barotropic and baroclinic conditions Circulation in the atmosphere: Planetary winds, jet stream, index cycle Tropical and mid- latitude cyclones Monsoon circulation and mechanism with reference to India Climatic classification after Köppen Paper Interpretation of daily weather map of India: Monsoon Construction and interpretation of	Code: GEOA	A.D.S M.M M.M A.S	October November- December November- December December - January December - January July-
atmosphere: Planetary winds, jet stream, index cycle Tropical and mid- latitude cyclones Monsoon circulation and mechanism with reference to India Climatic classification after Köppen Paper Interpretation of daily weather map of India: Monsoon Construction and interpretation of	Code: GEOA	M.M M.M A.S	December December December - January December - January January January
latitude cyclones Monsoon circulation and mechanism with reference to India Climatic classification after Köppen Paper Interpretation of daily weather map of India: Monsoon Construction and interpretation of	Code: GEOA	M.M A.S	December - January December - January December - January July-
and mechanism with reference to India Climatic classification after Köppen Paper Interpretation of daily weather map of India: Monsoon Construction and interpretation of	Code: GEOA	A.S COR05P	January December - January July-
after Köppen Paper Interpretation of daily weather map of India: Monsoon Construction and interpretation of	Code: GEOA	COR05P	January July-
Interpretation of daily weather map of India: Monsoon Construction and interpretation of	Code: GEOA		•
Interpretation of daily weather map of India: Monsoon Construction and interpretation of	Code: GEOA		•
weather map of India: Monsoon Construction and interpretation of		D.B	•
interpretation of			December
hythergraph and climograph (G. Taylor)		A.S	September- November
Construction and interpretation of wind rose		A.D.S	December- January
Davas		CODACT	
Paper	Code: GEOA		
Characteristics and		A.S	July-August
Distribution, growth,		A.S	August- September
special reference to		O.M	September- October
		A.D.S	November- December
	Physiographic divisions Climate and soil: Characteristics and classification Population: Distribution, growth, structure and policy Tribes of India with special reference to Toda and Jarwa Agricultural regions.	divisions Climate and soil: Characteristics and classification Population: Distribution, growth, structure and policy Tribes of India with special reference to Toda and Jarwa Agricultural regions.	divisionsClimate and soil: Characteristics and classificationA.SPopulation: Distribution, growth, structure and policyA.STribes of India with special reference to Toda and JarwaO.M

		Mineral and power resources distribution and utilisation of iron ore, coal and petroleum		A.D.S	December- January
	-	Industrial development: Automobile and information technology		A.C	December- January
		Regionalisation of India: Economic (P. Sengupta)		M.M	July-August
Ge o	Jnit II: ography f West Bengal	Physical perspectives: Physiographic divisions, forest and water resources		A.D.S	November- December
	-	Resources: Agriculture, mining, and industry		M.M	November- December
	_	Population: Growth, distribution and human development	6	S.K	December - January
		Regional Issues: Darjeeling Hills and Sundarban		A.C	December - January
		Paper	Code: GEOA	COR07T	
Fre Dis	Unit I: equency tribution and	Importance and significance of statistics in Geography		M.M	July-August
Sa	ampling	Discrete and continuous data, population and samples, scales of measurement (nominal, ordinal, interval and ratio)		M.M	August- September
		Sources of geographical data for statistical analysis		S.K	September- October
		Collection of data and formation of statistical tables		D.B	November- December

	Sampling: Need, types, and significance and methods of random sampling		D.B	December- January	
	Theoretical distribution: frequency, cumulative frequency, normal and probability		A.D.S	December- January	
Unit II: Numerical Data Analysis	Central tendency: Mean, median, mode, partition values		A.S	July-August	
	Measures of dispersion range, mean deviation, standard deviation, coefficient of variation		A.S	August- September	
	Association and correlation: Rank correlation, product moment correlation		A.D.S	September- October	
	Regression: Linear and non-linear	6	A.D.S	November- December	
	Time series analysis: Moving average		S.K	December - January	
		Code: GEOA	COR07P		
Statistical Methods in Geography	Construction of data matrix with each row representing an areal			July- August	
(Lab)	unit (districts / blocks / mouzas / towns) and corresponding columns of relevant attributes		O.M		
	Based on the above, a frequency table, measures of central tendency and			August- October	
	dispersion would be computed and interpreted using histogram and		O.M		

	Based on of 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		A.D.S	Novemb	
	Paner	Code: GEOS	SEC01M		
	Principles of Remote Sensing (RS): Classification of RS satellites and sensors Sensor resolutions and		D.B	July Decem	Students prepare a project report
	their applications with reference to IRS image referencing schemes and data acquisition. Concept of False		D.B		
	Colour Composite from IRS LISS-3		D.B		
	Principles of image interpretation and feature extraction. Preparation of inventories of land use land cover features from satellite images.		D.B		
	For EV	EN Sei	nester	rs	
	Paper (Code: GEO	ACOR03T		
Unit I: Nature and Principles	Nature, scope and recent trends. Elements of Human Geography		S.K	February	
	Approaches to Human		S.K	February	

S.K

S.K

March

March

Geography; Environmental Concept and

classification of race Cultural regions

(language and religion)

	Unit II: Society, Demograph y and Ekistics	Evolution of human societies: Hunting and food gathering, pastoral nomadism, subsistence farming and industrial society Human adaptation to environment: Masai Population growth and distribution, demographic	90	M.M M.M M.M, A.D. S	February February- March March
		transition Types and patterns of rural settlements	-	0.M	March- April
		Morphology of urban settlements	-	0.M	April
er II		Paper (Code: GEO	ACOR04T	
ste		-			F ahmana I
Semester I	Cartograms and Thematic Mapping	Concepts of rounding, scientific notation, logarithm and anti- logarithm, natural and log scales	S	D.B	February- March
		Diagrammatic representation of data: Line, Bar, Isopleths	60	A.S	March
		Representation of socio-economic data: Dots and spheres, proportional circles and Choropleth	-	A.S	March- April
		-			
		Bearing: Magnetic and true, whole-circle and reduced		A.D. S	February
0		Basic concepts of surveying and survey equipment: Prismatic Compass, Dumpy Level, Theodolite	-	D.B	March- May
		Paper (Code: GEO	ACOR04P	
	Cartograms and	Thematic maps:			
	Thematic Mapping lab				
		8			· · · · ·

			 Choropleth showing density of population Dots and 		A.S	February
			Spheres diagram showing distribution of rural and urban population.	60		
			 Proportional pie- diagrams representing economic data and land use data 	-	A.S	March
			Traverse survey using prismatic compass, Profile survey using dumpy Level		D.B	March- May
				Code: GEO		
		Unit I: Regional Planning	Concept of regions: Types of regions and their delineation		A.C	February
R I<	S		Regional Planning: Types, principles, objectives	9	A.C	February- March
ĴTE	no		Multi- level planning in India		A.C	March
SEMESTER IV	Honours		Metropolitan concept and urban agglomerations	90	A.C	April
		Unit-II: Regional Developmen t	Concepts of growth and development	-	A.D. S	February
	.0		Economic, social and environmental		O.M	March
			Human development: Concept		0.M	April
			Cumulative causation model for regional development (Myrdal)		D.B	March
			Concept and causes of underdevelopment		D.B	April
			Regional development in India: Disparity and diversity		D.B	June
			(GEOACORO)9Т	
			9			

	Unit-I: Concepts	Concepts in Economic Geography: Goods and services, production, exchange and consumption		O.M	February	
		Concept of economic man Economic distance	-	0.M	March	
		and transport costs		O.M	April	
	Unit-II: Economic Activities	Concept and classification of economic activities		A.C	February	
		Factors affecting location of economic activity with special reference to industry		A.C	February	
		(Weber). Secondary activities: Concept of manufacturing regions, special economic zones and technology parks	60	A.C	March	
		Tertiary activities: Transport and services	-	M.M	March	
		Agricultural systems: Case studies of tea plantation in India and mixed farming in Europe		A.D. S	April	
		International trade and economic blocks: WTO, GATT and BRICS: Evolution, structure and functions		M.M	Мау	
			GEOACOR1	LOT		
8	Unit-I: Concepts	Concept of holistic environment and systems approach		A.S	February	
		Ecosystem: Concept, structure and functions		A.S	March	
	Unit-II: Environment al problems and policies	Urban environmental issues with special reference to waste management		S.K	March	

	Environmental policies – National Environmental Policy, 2006, Earth Summits (Stockholm, Rio, Johannesburg)	60	S.K	April	
	Global initiatives for environmental management (special reference to Montreal Protocol, Kyoto Protocol, Paris Climate Summit)		S.K	Мау	
		GEOACOR	10P		
Environment al Geography Lab	Preparation of questionnaire for perception survey on environmental problems		A.S	February- March	
	Preparation of check- list for Environmental Impact Assessment of an urban / industrial project	60	A.C	March- April	
	Interpretation of air quality using CPCB / WBPCB data		D.B	April- May	
		GEOSSEC02	2M		
Advance Spatial Statistical Techniques	Probability theory, probability density functions with respect to Normal, Binomial and Poisson distributions and their	30	S.K	February- April	Project prepared by the students
	geographical applications.				
	Sampling: Sampling plans for spatial and non-spatial data, sampling distributions. Sampling estimates for large and small samples tests involving means and proportions.		S.K		
	11 T				

correlation; linear regression, residuals from regression, and simple curvilinear regression. Introduction to multi- variate analysis. Time Series Analysis: Time Series processes; Smoothing time series; Time series	S.K	
components.		

Semester	1				
Semester			PAPER V		
			Social and Cultural Geography		
		OGRAPHY	1. Concept of culture and its components with special emphasis on India: language, religion and ethnicity.	0.М	
≡	IRS	GROUP A: SOCIAL, CULTURAL AND POLITICAL GEOGRAPHY	2. Social geography of rural India: caste structure and social stratification; tribe – Santhals and Lepcha.	0.М	July- October
PART	HONOURS	TURAL AN	 3. Urban social Geography — Social ecology and social space. 	M.M	
	Ĩ	IL, CUL	4. Rural settlements – its forms, site and situations.	M.M M.M	
		SOCIA	Urban settlement – morphology and hierarchy.		November-
		ΡA	Political Geography		December
		GROU	5. Concept of Political Geography and geo-politics; concept of frontier and boundary	D.B	
			6. Concept of cold war; bi- polarisation and unipolarisation.	D.B	January- March
	<u> </u>	<u> </u>			1

	 7. Political geography of India: Administrative settings of India, problem of border states, partition and its geo-political implications. 	A.S A.S		
Анч	1. Concepts of regions; basis of regionalization with reference to India physical, economic and planning.	A.C	July- October	
GROUP B: REGIONAL GEOGRAPHY	 2. a) Physiographic Regions of India with special reference to Kashmir Himalaya b) Agricultural Region of India of India with special reference to Punjab- Haryana 	A.C	November- December	
GRO	c) Industrial Region of India with special reference to Mumbai-Pune industrial belt	S.K.D	January- March	
	3. Regional disparities in India: causes and implications	S.K.D	Warch	
	PAPER VI			
	1. Definition and nature of Geography.	A.C		
GEOGRAPH	2. Selected contributors in the evolution of geographical thought Humboldt, Vidal de la	A.S	July- October	
Υ OF	Blache, Carl Sauer and David Harvey	A.C		
GROUP A: PHILOSOPHY OF GEOGRAPHY	3. Major postulates: Determinism, Possibilism, Regional differentiation, location, time and	A.C	November- December	
	space.	A.C		
GRO	4. Changing approaches and methodology: Positivism, Quantitative Revolution, Welfare-	A.C	January- March	

	Behavioural approach, Structural and radical approach	A.C		
	Section -1: Natural hazards and their management in the Indian Sub-continent:			
	5. Concept of hazards and disasters: Natural, quasi- natural and man-made hazards, different	A.S	July- October	
	approaches in hazard management.	A.S		
	6. Climatic hazards: Flood, drought and cyclone mechanism – environmental impact and	A.S		
Ļ	management.	A.S	November-	
IN GEOGRAPI	7. Geomorphic hazards: landslide, river bank erosion, coastal erosion environmental impact	A.S	December	
VTEMPORARY ISSUES IN GEOGRAPHY	and management. 8. Edaphic and biotic hazards: Deforestation, desertification, loss of bio- diversity — environmental impact and management.	M.M	January- March	
GROUP B: CON	Section-2: Economic and human development in the Third World			
GRO	9. Concept of third world, concept of development and under development: Basic indicators of	A.C	July- October	
	economic, human and			
	gender development. 10. Problems of third world – Poverty, Population explosion, food security and hunger, unemployment, malnutrition and child	A.C	November- December	
	labour. 11. Globalization and sustainable development. 12. Problem of urbanization.	A.C	January- March	
	· · · ·	A.C		

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	PAPER VII		
	13. Interpretation of geological maps and drawing of sections: Uniclinal, folds with unconformity and igneous	A.S	
	intrusions (20 marks) 14. Interpretation of Indian Daily Weather Maps – Monsoon and Post Monsoon. (15 marks)	D.B	
	15. Remote Sensing (15 marks)		
	a. Basic concept of remote sensing, EMR, Band	S.K.D	July- October
INIQUES	b. Types of satellites and sensors with special reference to IRS series of satellites;	S.K.D	
L TECH	types of resolutions and their applicability	S.K.D	
PLIED GEOGRAPHICAL TECHNIQUES	c. Principles of preparing standard false colour composite, landuse and land cover	S.K.D	
IED GE	mapping from standard FCC with header information.	S.K.D	
APPL	d. Interpretation of aerial photograph – basic principles of aerial photography, side	D.B	
	lap, end lap, flight line, air base, fudicial marks, .Principle Point, Nadir Point,	D.B	
	Conjugate Principal Point,	D.B	November-
	e. Preparation of aerial photo mosaics, demarcation of effective area, extraction of	D.B	December
	cultural and physiographic features within this area with preparation of	D.B	
	interpretation key. 16. Geographical Information System. (15 marks)	D.B	January- March

	a. Concept of GIS and its applicability: Spatial and attribute data, raster and vector	D.B		
	data structure and concept of information layers in GIS.	D.B		
	b. Georeferencing of scanned maps and ascribing projection (Polyconic/ UTM)	D.B		
	c. Digitisation of point, line and polygon layers; Attachment of appropriate attribute		0	
	tables.	D.B		
	d. Preparation of thematic maps from attached data: choropleth, pie chart and bar	D.B		
	graphs.	D.B		
	17. Field Report	A.D.S A.S	July- March	Project
	PAPER VIII			
S1	1. Nature of statistical data: discrete, continuous, parametric and non- parametric data.	A.D.S		
Technique	2. Tabulation and classification of statistical data.	A.D.S	July- October	
Group-A: Statistical Techniques	3. Frequency distribution: histogram, frequency polygon, ogive, normal and skewed	A.D.S	October	
A-quo	distribution, measures of skewness.	A.D.S		
Ū	4. Measures of central tendency: mean, median, mode, partition values : quartile, decile, percentile.	A.D.S	November- December	

		5. Measures of dispersion: mean deviation, quartile deviation, semi-quartile range, standard deviation and co-efficient of	A.D.S	January- March	
-		variation.	A.D.S		
		Section-A : Representation of climatic and hydrological data of the Indian Sub- continent.			
		1. a) Preparation and Interpretation of a climatic chart showing relationship between rainfall,	A.S		
		temperature, pressure and relative humidity of a station for three months, preparation and	A.S	July- November	
	ography	interpretation of Taylor's Climograph and Hythergraph.	A.S		
	ntemporary issues in Geography	b) Preparation of station models for different meteorological stations of India with the help of	A.S		
	Group-B: Contemporar	Synoptic chart. 2. Preparation and interpretation of rating curves, hydrographs and unit hydrographs of rivers flowing through the Indian	A.S	December- March	
	Grou	Sub-continent. Section-B: Economic and Human Development in Third World.			
		3. Computation of Human and Gender Development Index and ranking of	A.C	July-	
		countries/states/districts based on HDI and GDI.	A.C	October	
		4. Preparation of questionnaire schedule for assessment of development and for perception	A.C	November- December	
		and for perception survey.			

5. Measures of Spatial and size-class distribution.	A.C		
6. a) Dominant-distinctive function.	A.C	January- March	
b) Rank-size rule.	A.C		
c) Lorenz curve.	A.C		

	Paper IV		
	Section I: Land use and settlement Geography (30 Marks)		
	1. Concept and attributes of land.	ОМ	July- September
	2. Objectives and principles of land use.	ом	July- August
	3. Factors influencing land use and land categories:	ом	August
	a) Agricultural land use.	ОМ	September
γHΥ	b) Non-agricultural landuse.	ОМ	September
ED GEOGRA	4. Rural settlements: evolution, nature and effect of physical environment,	ОМ	October- November
CAL APPLI	5. Urban settlements: definition, morphology and function.	ОМ	October- November
GROUP- A: THEORITICAL APPLIED GEOGRAPHY	Section II: Remote Sensing and Geographical Information System	SKD	July- September
GROUP	1. Concept of Remote Sensing, different methods of remote sensing – aerial photo and satellite imagery.	SKD	July- September
	2. Aerial Photo: Types and interpretation keys; concept of principal point, fudicial marks, flight line, photo	SKD	December - January
	overlap.		

General

Part III

		3. IRS image different ty resolution a applicability	pes of Ind their	SKD	December - January
		4. Concept of applicability and attribut raster and v structure ar of GIS	te data, vector data	SKD	December - January
	GROUP- A: PRACTICAL APPLIED GEOGRAPHY	1. Interpret Daily Weath published b Meteorolog Department Season	ner Maps y India	DB	July- January
	T APPLI	2. Preparati thematic ma	aps:	2	
	ACTICA	i) Flow diag Determinat Detour Inde	ion of	AC	September- October
	GROUP- A: PR	3. Aerial phi interpretati identificatio physical and features. (7	on for on of broad d cultural	SKD	November- January
Semester	(Hons /	General)	Internal Assessme	nt U	niversity

ſ	Semester	(Hons /General)	Internal Assessment	University
			(Tentative time)	Examination

	llere	1 st Internal Assessment-	
	Hons.		January, 2022
		2 nd Week of September, 2021	(Tentative)
		2021	
		2 nd Internal Assessment-	
		2 nd Week of November,	
		2021	
	Hons.	1st Internal Assessment-	July, 2022 (Tentative)
		3rd Week of April, 2021	
		2nd Internal Assessment-	
		2nd Week of May, 2021	
	Hons.	1st Internal Assessment-	January, 2022
•••		2nd Week of September,	(Tentative)
		2021	
		2nd Internal Assessment-	·
		2nd Week of November,	
		2021	
		2021	
IV	Hons.	1st Internal Assessment-	July, 2022 (Tentative)
IV		3rd Week of April, 2021	
		2nd Internal Assessment-	
		2nd Week of May, 2021	
	Þ		
OFRIN			

ACADEMIC CALENDAR

DEPARTMENT OF GEOGRAPHY

Session: 2020- 2021

Semester	(Hons /Gener al)	Syllabus Module/Unit	Торіс	No. of lectures (Hours)	Teachers	Distribution	Project/ Student Seminar (if any)
			For C	DDD Se	mesters		
			Paper	Code: GEOA	COR01T		
		Unit I: Geotectonic	Earth's tectonic and structural evolution with reference to geological time scale.		D.B	July- August	
			Earth's interior with special reference to seismology.		A.C	July- August	
18	Ş		Plate Tectonics as a unified theory of global tectonics: Processes and landforms at plate margins and hotspots.		O.M	August- September	
SEMESTER	Honours	Unit II: Geomorphol ogy	Degradational processes: Weathering, mass wasting and resultant landforms.	60	A.S	August- September	
			Development of river network and landforms on folded structures.		A.D.S	September- October	
			Glacial and glacio- fluvial processes and landforms.		M.M	October- November	
			Aeolian and fluvio- aeolian processes and landforms.		A.D.S	October- November	
			Models on landscape evolution: Views of Davis and Hack		S.K	December- January	

Geotect onic& Geomor ohology .ab.	Megascopic identification of (a) mineral samples: Bauxite, calcite, chalcopyrite, galena, hematite, mica, quartz, tourmaline; and (b) rock samples: Granite, basalt, laterite, sandstone, conglomerate, slate, phyllite, schist, gneiss, marble Interpretation of geological maps with unconformity and intrusions on uniclinal	60	A.D.S & O.M	July- January July- January	
	marble Interpretation of geological maps with unconformity and intrusions on uniclinal			-	
	structure		A.S		
	Da		FOACODOJT		
Cantaana		per Code: G	EOACORUZI		
Cartogra phic Techniq	Maps: Classification and types. Components of a map	60	M.M	July- August	
ues	application of scales: Plain, comparative and		D.B	September to November	
	Survey of India topographical maps: Reference scheme of old and open series. Information on the		A.S	September to November	
	Coordinate systems: Polar and rectangular		D.B	November- December	
	Concept of generating globe and UTM projection		A.D.S	December- January	
	Map projections: Classification, properties and uses		S.K & A.C	December- January	
٦	echniq	Techniq Components of a map Concept and application of scales: Plain, comparative and diagonal Survey of India topographical maps: Reference scheme of old and open series. Information on the margin of maps Coordinate systems: Polar and rectangular Concept of generating globe and UTM projection Map projections: Classification,	Techniq Components of a map Concept and application of scales: Plain, comparative and diagonal Survey of India topographical maps: Reference scheme of old and open series. Information on the margin of maps Coordinate systems: Polar and rectangular Concept of generating globe and UTM projection Map projections: Classification,	TechniqComponents of a mapJesConcept and application of scales: Plain, comparative and diagonalD.BSurvey of India topographical maps: Reference scheme of old and open series. Information on the margin of mapsA.SCoordinate systems: Polar and rectangularD.BConcept of generating globe and UTM projectionD.BMap projections: Classification,S.K & A.C	Techniq uesComponents of a mapJuly- AugustConcept and application of scales: Plain, comparative and diagonalD.BSeptember to NovemberSurvey of India topographical maps: Reference scheme of old and open series. Information on the margin of mapsA.SSeptember to NovemberCoordinate systems: Polar and rectangularD.BNovemberConcept of generating globe and UTM projectionD.BNovember- December- JanuaryMap projections: Classification,S.K & A.CDecember-



	P	aperCode:GEOACOR02P		·	· · · · · · · · · · · · · · · · · · ·
		Graphical construction of scales: Plain, comparative and diagonal		D.B	September to November
	aphic Techni ques	Construction of projections: Polar Zenithal Stereographic, Bonne's, Cylindrical Equal Area, and Mercator's	6 0	A.C, S.K & A.D.S	November - December
		Delineation of drainage basin from Survey of India topographical map, relative relief map, slope map (Wentworth), and stream ordering (Strahler) on a drainage basin.	Š	A.S	December -January
		Correlation between physical and cultural features from Survey of India topographical maps using transect chart.		O.M	December -January
	Unit I:	P	aper Code:	GEOACOR05T	
	Elements of the Atmospher	compositionand		O.M	July-August
νιτ	c	Insolation: controlling factors. Heat budgetof the atmosphere		O.M	August- Septembe r
		Temperature: horizontal and verticaldistribution. Inversion of temperature: types,causes and consequences		D.B	September -October



1	Greenhouse effect				
	and importance of ozonelayer		A.C	November - December	
Unit II: Atmospheric Phenomena and Climatic Classification	Condensation: Processand forms. Mechanismof precipitation: Bergeron-Findeisen theory		S.K	July-August	
		G			

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		Air mass: Typology, origin, characteristics and modification	A.S	August- September
		Weather: stability and instability; barotropic and baroclinic conditions	A.D.S	September- October
		Circulation in the atmosphere: Planetary winds, jet stream, index cycle	A.D.S	November- December
		Tropical and mid- latitude cyclones	M.M	November- December
		Monsoon circulation and mechanism with reference to India	M.M	December - January
		Climatic classification after Köppen	A.S	December - January
			le: GEOACOR05P	I I
	Climatology	Interpretation of daily weather map of India: Monsoon	D.B	July- December
		Construction and interpretation of hythergraph and climograph (G. Taylor)	A.S	September- November
		Construction and interpretation of wind rose	A.D.S	December- January
		Paper Cod	le: GEOACOR06T	
	Unit I:			
	Geography of India	Physiographic divisions		
R		Climate and soil: Characteristics and classification	A.S	July-August
		Population: Distribution, growth, structure and policy	A.S	August- September
		Tribes of India with special reference to Toda and Jarwa	O.M	September- October
		Agricultural regions. Green revolution and its consequences	A.D.S	November- December



	Mineral and power resources distribution and utilisation of iron ore, coal and petroleum		A.D.S	December- January
	Industrial development: Automobile and information technology		A.C	December- January
	Regionalisation of India: Economic (P. Sengupta)		M.M	July-August
		,		
Unit II: Geography of West Bengal	Physical perspectives: Physiographic divisions, forest and water resources		A.D.S	November- December
	Resources: Agriculture, mining, and industry		M.M	November- December
	Population: Growth, distribution and human development	6	S.K	December - January
	Regional Issues: Darjeeling Hills and Sundarban		A.C	December - January
	Paper	Code: GEOA	COR07T	
Unit I: Frequency Distribution and Sampling	Importance and significance of statistics in Geography		M.M	July-August
	Discrete and continuous data, population and samples, scales of measurement (nominal, ordinal, interval and ratio)		M.M	August- September
	Sources of geographical data for statistical analysis		S.K	September- October
	Collection of data and formation of statistical tables		D.B	November- December



Sampling: Need, types, and significance and methods of random sampling D.B December- January Theoretical distribution: frequency, cumulative frequency, table, frequency, table, D.B December- January Data Analysis Construction of data matrix with each row representing an areal unit (districts / blocks / mouzas / towns) and corresponding columns of relevant attributes A.B.S July-August				
distribution: frequency, cumulative frequency, normal and probability A.D.S December- January Unit II: Numerical Data Analysis Central tendency: Mean, median, mode, partition values A.S July-August Measures of dispersion range, mean deviation, coefficient of variation A.S July-August Association and correlation, product moment correlation A.S August- September Regression: Linear and non-linear A.D.S September- December- December Time series analysis: Methods in Geography (Lab) Construction of data matrix with each row representing an areal unit (district / blocks / mouza / towns) and corresponding columns of relevant attributes July- August July- August		and significance and methods of random	D.B	
Numerical Data Analysis Mean, median, mode, partition values A.S July-August Measures of dispersion range, mean deviation, standard deviation, coefficient of variation A.S August- September Association and correlation: Rank correlation, product moment correlation A.D.S September- October Regression: Linear and non-linear A.D.S September- December Time series analysis: Moving average S.K December - January Statistical Methods in Geography (Lab) Construction of data matrix with each row representing an areal unit (districts / blocks / mouzas / towns) and corresponding columns of relevant attributes O.M July- August Based on the above, a frequency table, August- October O.M		distribution: frequency, cumulative frequency, normal and	A.D.S	
Numerical Data Analysis Mean, median, mode, partition values A.S July-August Measures of dispersion range, mean deviation, standard deviation, coefficient of variation A.S August- September Association and correlation. Rank correlation, product moment correlation A.D.S September- October Regression: Linear and non-linear A.D.S September- December Time series analysis: Moving average S.K December - January Statistical Methods in Geography (Lab) Construction of data matrix with each row representing an areal unit (districts / blocks / mouzas / towns) and corresponding columns of relevant attributes O.M July- August Based on the above, a frequency table, Based on the above, a frequency table, August- October			· · · · ·	
Measures of dispersion range, mean deviation, standard deviation, coefficient of variation A.S August- September Association and correlation, product moment correlation A.D.S September- October Regression: Linear and non-linear A.D.S November- December Time series analysis: Moving average S.K December - January Statistical Methods in Geography (Lab) Construction of data matrix with each row representing an areal unit (districts / blocks / mouzas / towns) and corresponding columns of relevant attributes O.M Based on the above, a frequency table, August- October	Numerical	Mean, median, mode,	A.S	July-August
correlation: Rank correlation, product moment correlationA.D.SSeptember- OctoberRegression: Linear and non-linearA.D.SNovember- DecemberTime series analysis: Moving averageS.KDecember - JanuaryPaper Code: GEOACOR07PStatistical Methods in Geography (Lab)Construction of data matrix with each row representing an areal unit (districts / blocks / mouzas / towns) and corresponding columns of relevant attributesO.MBased on the above, a frequency table,August- October	·	dispersion range, mean deviation, standard deviation,	A.S	-
non-linear A.D.S December Time series analysis: Moving average S.K December - January Paper Code: GEOACOR07P Statistical Methods in Geography (Lab) Construction of data matrix with each row representing an areal unit (districts / blocks / mouzas / towns) and corresponding columns of relevant attributes O.M July- August Based on the above, a frequency table, Based on the above, a frequency table, August- October		correlation: Rank correlation, product	A.D.S	-
Moving average S.K January Statistical Methods in Construction of data matrix with each row Geography (Lab) July- August Methods in matrix with each row representing an areal unit (districts / blocks / mouzas / towns) and corresponding columns of relevant attributes O.M Based on the above, a frequency table, August- October		-	A.D.S	
Statistical Methods in Geography (Lab)Construction of data matrix with each row representing an areal unit (districts / blocks / mouzas / towns) and corresponding columns of relevant attributesJuly- AugustBased on the above, a frequency table,O.M			S.K	
Statistical Methods in Geography (Lab) Construction of data matrix with each row representing an areal unit (districts / blocks / mouzas / towns) and corresponding columns of relevant attributes O.M July- August Based on the above, a frequency table, August- October		Dente		
Methods in Geography (Lab) Methods in (Lab) Methods in (Lab) Methods in matrix with each row representing an areal unit (districts / blocks / mouzas / towns) and corresponding columns of relevant attributes Based on the above, a frequency table, Methods in Poly O.M August- October	<u></u>		Code: GEOACOR07P	
(Lab) unit (districts / blocks / mouzas / towns) and corresponding columns of relevant attributes Based on the above, a frequency table, O.M O.M August- October	Methods in	matrix with each row		July- August
Based on the above, a frequency table,August- October		mouzas / towns) and corresponding columns of relevant	0.M	
measures of central tendency and		Based on the above, a frequency table, measures of central		-
dispersion would be computed and interpreted using histogram and frequency curve		computed and interpreted using histogram and	O.M	



	Based on of 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	A.D.S	November- December	
	Paper Code: GE Principles of Remote	OSSEC01M	July-	Students
	Sensing (RS): Classification of RS satellites and sensors	D.B	December	prepare a project report
	Sensor resolutions and their applications with reference to IRS image referencing schemes and data acquisition.	D.B		
	Concept of False Colour Composite from IRS LISS-3	D.B		
	Principles of image interpretation and feature extraction. Preparation of inventories of land use land cover features from satellite images.	D.B		
	Paper Code: GE Research in			
	Geography: Meaning, types and significance	M.M	July-August	
> v	Literature review and formulation of research design	A.C	August- September	
SEMESTER V Honours	Defining research problem and objectives	A.C	September- October	
HC SEV	Research materials and methods	A.C	November- December	
	Techniques of writing scientific reports: Preparing notes, references,	M.M	December- January	



bibliography, abstract and keywords			
Fieldwork in			July-August
Geographical studies: Role and significance. Selection of study area and objectives. Pre- field academic preparations. Ethics of fieldwork		A.D.S	
Field techniques and tools: Observation (participant, non participant), questionnaires (open, closed, structured, non-structured). Interview		A.D.S	August- September
Positioning and collection of samples. Preparation of inventory from field data.	6	D.B	September- October
Post-field tabulation, processing and analysis of quantitative and qualitative data		D.B	November- December
Dana	Code: GEOA	COR11P	
Literature Review		A.D.S & A.C	August- January
Field Report		A.S, D.B, O.M, M.M & S.K	August- January
Dana	r Code: GEOA	COR12T	· · · ·
Classification of hazards and disasters.		A.D.S	July-August
Approaches to hazard study: Risk perception and vulnerability assessment. Hazard paradigms		A.S	August- September



Responses to hazards: Preparedness, trauma and aftermath. Resilience and capacity building.	A.S	September- October	
Hazards mapping: Data and geospatial techniques (for hazards enlisted in Unit II and Core 12P) (Proposed Workshop	Proposed extension lecture	November- December	
Earthquake: Factors, vulnerability, consequences and management	O.M	December- January	
Tropical Cyclone: Factors, vulnerability, consequences and management	M.M		
Riverbank erosion: Factors, vulnerability, consequences and management	S.K		
Paper Code	: GEOACOR12P	COR12P	
An individual Project Report is to be prepared and submitted based on any one case study among the following disasters of West Bengal: 1) Cyclone/ Thunderstorm, 2) Landslide, 3) Flood, 4) Coastal/ riverbank erosion, 5) Fire, 6) Industrial accident, 7) Structural collapse.	A.D.S, A.S, D.B, A.C, O.M, M.M & S.K	July- January	
Paper Code	: GEOADSE01T		
Factors or soil formation. Man as an active agent of soil transformation.	M.M	July- August	



Soil profile. Origin and profile characteristics	O.M	July- August
of Lateritic and Chernozem soils	0.101	
11		

		Definition and			August		
		significance of soil		Collaboratio			
		properties: Texture,		n class			
		structure and		II CIASS			
		moisturiser					
		Definition and			September		
		significance of soil		Collaboratio			
		properties: pH, organic		n class			
		matter and NPK					
		Soil erosion and			October-		
		degradation: Factors,		A.S	November		
		processes and		A.5			
		mitigation measures					
		Principles of soil			November-		
		classification: Genetic		A.S	December		
		and USDA.					
		Concepts of			July- August		
		biosphere, ecosystem,					
		biome, ecotone,		A.D.S			
		community, niche,		7.112.10			
		succession and					
		ecology					
		Concepts of trophic			July- August		
		structure, food chain		A.D.S			
		and food web.					
		Geographical extent			August		
		and characteristic		M.M			
		features of: Tropical rain forest and		101.101			
		Grassland biomes					
					Contombor		
		Bio-geochemical cycles with special reference			September		
		to carbon dioxide and		A.D.S			
		nitrogen					
		Measures for			October-		
		conservation of bio-			November		
		diversity in India: Man		A.D.S	November		
		and Biosphere		N.D.5			
		Programme					
		riogramme					
		Paner	Code: GFOA	DSF02T			
	<u> </u>	Paper Code: GEOADSE02T Scope and content of					
		Settlement					
		Geography; rural,		M.M			
		urban and peri-urban					
		areas			July- August		
		Rural Settlement:					
		Definition, nature and		A.C			
		characteristics			August		



Morphology of rural settlements: site and situation, layout- internal and external	A.D.S	September
Rural house types with reference to India, Social segregation in rural areas; Census categories of rural settlements.	A.D.S	October- November
Problems and policies related to rural infrastructure with reference to India	O.M	November- December
· · · · · ·		
Urban Settlements: Census definition (Temporal) and categories in India	A.S	July- August
Urban morphology: Classical models: Burgess, Homer Hoyt, Harris and Ullman	A.S	July-August
Metropolitan concept City-region and Conurbation, Functional classification of cities:	A.D.S	August
Nelson and McKenzie Aspects of urban places: Location, site and situation, Size and spacing of cities: the rank size rule, the law of the primate city	S.K	September October- November
Urban hierarchies: Central Place Theory	S.K	November- December



			For EV	EN Se	meste	rs
			Paper (Code: GEO	ACOR03T	
		Unit I:	Nature, scope and		S.K	February
		Nature and	recent trends.			
		Principles	Elements of Human			
			Geography			
			Approaches to Human		S.K	February
			Geography;			
			Environmental			
			Concept and		S.K	March
			classification of race			
			Cultural regions		S.K	March
			(language and religion)			
		Unit II:	Evolution of human		M.M	February
		Society,	societies: Hunting and			
		Demograph	food gathering,	90		
		y and	pastoral nomadism,			
		Ekistics	subsistence farming			
			and industrial society			
_			Human adaptation to		M.M	February-
			environment: Masai			March
Ë			Population growth and		M.M	March
F	0		distribution,			
Ш́	<u> </u>		demographic			
SEMESTER I	Honours		transition			
SE	_		Types and patterns of		O.M	March-
•,			rural settlements			April
			Morphology of urban		0.M	April
			settlements	·		
			Dener	Code: CEO	ACOR04T	
			· · · ·	Loue. GEO		1
		Cartograms	Concepts of rounding,		D.B	February-
		and	scientific notation,			March
		Thematic	logarithm and anti-			
		Mapping	logarithm, natural and log scales			
			Diagrammatic		A.S	March
			representation of			
Ť			data: Line, Bar,	60		
			Isopleths			
			Representation of		A.S	March-
			socio-economic data:			April
			Dots and spheres,			
			proportional circles			
			and Choropleth			



		Bearing: Magnetic and true, whole-circle and reduced		D.B	February
		Basic concepts of surveying and survey equipment: Prismatic Compass, Dumpy	-	D.B	March- May
		Level, Theodolite	Code: GEO/	ACOR04P	
	Cartograms and Thematic Mapping lab	Thematic maps:			
		 Choropleth showing density of population 	-	A.S	February
		 Dots and Spheres diagram showing distribution of rural and urban population. 	60	A.S	March
		 Proportional pie- diagrams representing economic data and land use data 	-	A.S	March
		Traverse survey using prismatic compass, Profile survey using dumpy Level		D.B	March- May
		-	Code: GEO		F ahmana
2	Unit I:	Concept of regions:		A.C	February

		Paper	Code: GEO	ACOR08T		
2	Unit I:	Concept of regions:		A.C	February	
SEMESTER H	Regional	Types of regions and their delineation				
	Planning		-			
S S		Regional Planning:		A.C	February-	
<u> </u>		Types, principles,			March	
		objectives				
S		Multi- level planning in India	00	A.C	March	
		Metropolitan concept and urban agglomerations	90	A.C	April	
		aggiornerations	-			



Unit-II: Regional Developmen t	Concepts of growth and development		A.C	February	
				ot	
			C ^Q		
		C.			
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	16				

]	Economic, social and environmental		O.M	March	
		Human development: Concept		O.M	April	
		Cumulative causation model for regional development (Myrdal)		D.B	March	
		Concept and causes of underdevelopment		D.B	April	
		Regional development in India: Disparity and diversity		D.B	June	
		-	GEOACOR	09Т		
	Unit-I:	Concepts in Economic		O.M	February	
	Concepts	Geography: Goods and services, production, exchange and		C		
		consumption Concept of economic man		0.M	March	
		Economic distance and transport costs	6	O.M	April	
	Unit-II: Economic Activities	Concept and classification of economic activities		A.C	February	
		Factors affecting location of economic activity with special reference to industry (Weber).	60	A.C	February	
		Secondary activities: Concept of manufacturing regions, special economic zones and technology parks	60	A.C	March	
		Tertiary activities: Transport and services		M.M	March	
		Agricultural systems: Case studies of tea plantation in India and mixed farming in Europe		M.M	April	
		International trade and economic blocks: WTO, GATT and BRICS: Evolution, structure and functions		M.M	May	
·		17)	-			



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			GEOACOR1	ОТ		
	Unit-I: Concepts	Concept of holistic environment and systems approach		A.S	February	
		Ecosystem: Concept, structure and functions		A.S	March	
	Unit-II: Environment al problems	Urban environmental issues with special reference to waste		S.K	March	
	and policies	management Environmental policies – National	60	S.K	April	
		Environmental Policy, 2006, Earth Summits (Stockholm, Rio, Johannesburg)		C		
		Global initiatives for environmental management (special reference to Montreal Protocol, Kyoto	S	S.K	Мау	
		Protocol, Paris Climate Summit)				
			GEOACOR1	0P		
	Environment al Geography Lab	Preparation of questionnaire for perception survey on environmental problems		A.S	February- March	
		Preparation of check- list for Environmental Impact Assessment of an urban / industrial project	60	A.C	March- April	
		Interpretation of air quality using CPCB / WBPCB data		D.B	April- May	
Ť			GEOSSEC02	М		
	Advance Spatial Statistical Techniques	Probability theory, probability density functions with respect to Normal, Binomial and Poisson distributions and their	30	S.K	February- April	Project prepared by the students
		18				

		geographical applications.				
		Sampling: Sampling plans for spatial and non-spatial data, sampling distributions. Sampling estimates for large and small		S.K		
		samples tests involving means and proportions. Correlation and Regression Analysis: Rank order correlation		S.K		
		and product moment correlation; linear regression, residuals from regression, and simple curvilinear regression. Introduction to multi-	6			
		variate analysis. Time Series Analysis: Time Series processes; Smoothing time series; Time series components.		S.K		
			GEOACOR	1 3 T		
TER VI	Unit I: Nature of Pre Modern Geography	Development of Geography: Contributions of Greek and Chinese geographers		A.C	February- March	
SEMESTER VI		Impact of 'Dark Age' in Geography and Arab contributions		A.C	March	
S		Geography during the age of 'Discovery' and 'Exploration' (contributions of Columbus, Vasco da Gama, Magellan)	90	A.C	March- April	
		19)				
		X				

Dualism and Dichotomies (Ideographic vs.	A.C	April	
Nomothetic, Physical			
			~
	20.		
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	vs. Human, Determinism vs.			
	Possibilism,)			
Unit-II: Foundatior of Moderr Geograph	in Britain and United		A.C	February- March
and Recen Trends			A.C	March- April
	Contributions of Ratzel and Vidal deLaBlaché		A.C	March- April
	Trends of geography in the post-World War-II period: Quantitative Revolution, systems		A.C	April
	approach. Evolution of Critical Geography: Behavioural, humanistic and radical.		A.C	May
		GEOACOR	14T	
Unit I: Remote Sensing	Principles of Remote Sensing (RS): Types of RS satellites and sensors		D.B	February
	Sensor resolutions and their applications with reference to IRS and Landsat missions		D.B	March
	Preparation of False Colour Composites from IRS LISS-3 and Landsat TM and OLI data.	60	D.B	March
	Principles of image correction and interpretation. Preparation of inventories of landuse land cover (LULC) features from satellite images.		D.B	April



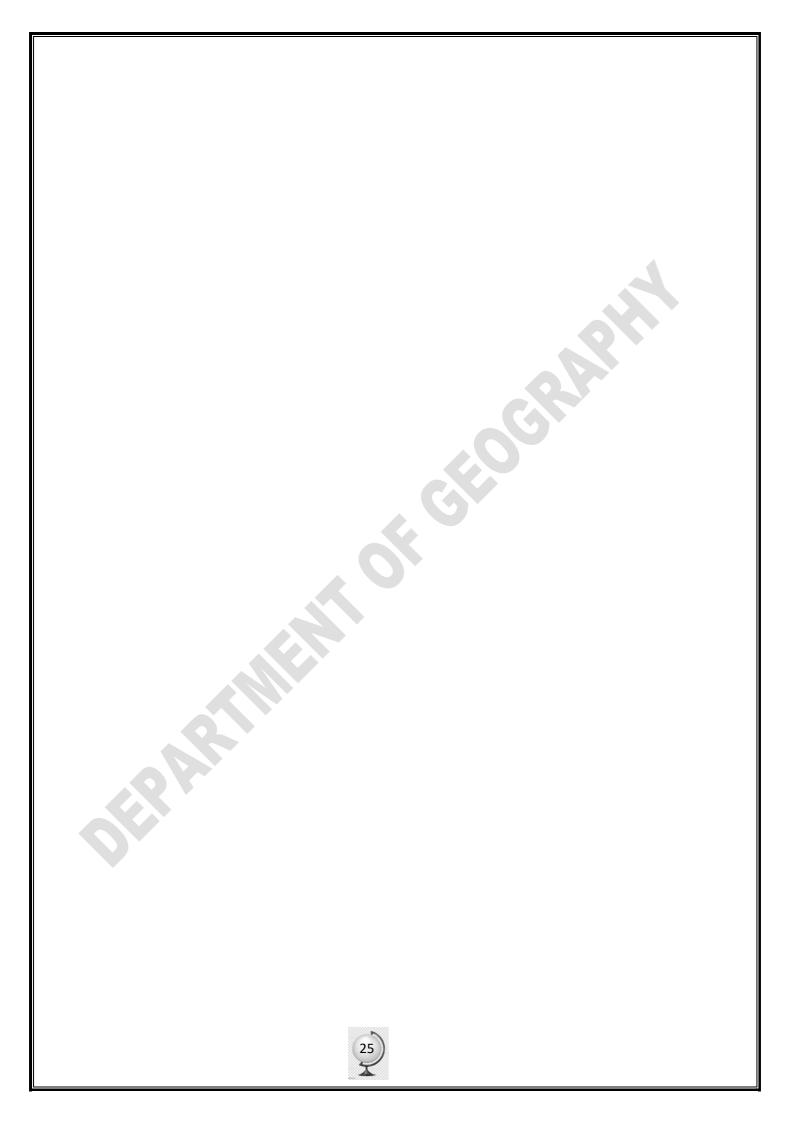
Unit II: Geographical Information System and Global Navigation	Concept of GIS and its applicability ; GIS data structures: types: spatial and non- spatial, raster and vector		D.B	February
Satellite System	Principles of preparing attribute tables and data manipulation and overlay analysis		D.B	March
	Principles of GNSS positioning		D.B	April
		GEOACOR	14P	
Remote Sensing and GIS	Preparation of land use and land cover map from standard FCC and its interpretation		D.B	February
	Representation of raster and vector data format.	60	0.M	March
	Area and length calculations from GNSS data.		D.B	April
	GE	OACORDS	5E04T	
Unit I: Hydrology	Systems approach in hydrology. Global hydrological cycle: Its physical and biological role		O.M	February
	Run off: controlling factors. Infiltration and evapotranspiration.		O.M	February
	Drainage basin as a hydrological unit. Principles of watershed management	90	O.M	March
	Groundwater: Occurrence and storage. Factors controlling recharge, discharge and movement		0.M	April



Oc	Unit II: ceanograph Y	Major relief features of the ocean floor: characteristics and origin according to plate tectonics		M.M	February
		Physical and chemical properties of ocean water		M.M	February- March
		Water mass, T–S diagram		M.M	March
		Ocean temperature and salinity: Distribution and determinants		M.M	April
		GE	OACORDS	Е06Т	
	Unit I: Resource and evelopmen t	Approaches to Resource Utilization: Utilitarian, Conservational, Community based adaptive		S.K	February
		Significance of Resources: Backbone of Economic growth and development	9	S.K	February- March
		Problems of resource depletion—global scenario (forest, water, fossil fuels).		S.K	March
		Conservation of Natural Resources	90	S.K	April
C	Unit II: Resource onflict and anagement	Distribution, Utilisation, Problems and Management of Mineral Resources: Bauxite and Iron Ore.		A.S	February
		Distribution, Utilisation, Problems and Management of Energy Resources: Conventional and Non- Conventional		A.S	February- March
		Concept of Resource sharing: Water		D.B	March

Semester	(Hons /General)	Internal Assessment	University
		(Tentative time)	Examination
I	Hons.	1 st Internal Assessment- 2 nd Week of September, 2021	January, 2022 (Tentative)
		2 nd Internal Assessment- 2 nd Week of November, 2021	
II	Hons.	1st Internal Assessment- 3rd Week of April, 2021	July, 2022 (Tentative)
		2nd Internal Assessment- 2nd Week of May, 2021	
111	Hons.	1st Internal Assessment- 2nd Week of September, 2021	January, 2022 (Tentative)
		2nd Internal Assessment- 2nd Week of November, 2021	
IV	Hons.	1st Internal Assessment- 3rd Week of April, 2021	July, 2022 (Tentative)
		2nd Internal Assessment- 2nd Week of May, 2021	
V	Hons.	1st Internal Assessment- 2nd Week of September, 2021	January, 2022 (Tentative)
		2nd Internal Assessment- 2nd Week of November, 2021	
VI	Hons.	1st Internal Assessment- 3rd Week of April, 2021	July, 2022 (Tentative)
		2nd Internal Assessment- 2nd Week of May, 2021	





ACADEMIC CALENDAR

DEPARTMENT OF GEOGRAPHY

Session: 2021- 2022

Semester	(Hons /Gener al)	Syllabus Module/Unit	Торіс	No. of lectures (Hours)	Teachers	Distribution	Project/ Student Seminar (if any)
			For C)DD Se	mesters		
			Paper	Code: GEOA	COR01T		
		Unit I: Geotectonic	Earth's tectonic and structural evolution with reference to geological time scale.		D.B	July- August	
			Earth's interior with special reference to seismology.		A.C	July- August	
SEMESTER I	S		Plate Tectonics as a unified theory of global tectonics: Processes and landforms at plate margins and hotspots.		O.M	August- September	
	Honou	Unit II: Geomorphol ogy	Degradational processes: Weathering, mass wasting and resultant landforms.	60	A.S	August- September	
			Development of river network and landforms on folded structures.		M.N	September- October	
			Glacial and glacio- fluvial processes and landforms.		M.M	October- November	
			Aeolian and fluvio- aeolian processes and landforms.		M.N	October- November	
			Models on landscape evolution: Views of Davis and Hack		S.K	December- January	

	Paper	Code: GEOA	COR01P	
Geotectonic & Geomorphol ogy Lab.	Megascopic identification of (a) mineral samples: Bauxite, calcite, chalcopyrite, galena, hematite, mica, quartz, tourmaline; and (b) rock samples: Granite, basalt, laterite, sandstone, conglomerate, slate, phyllite, schist, gneiss, marble	60	M.N & O.M	July- January
	Interpretation of geological maps with unconformity and intrusions on uniclinal structure		A.S	July- January
	Paper	Code: GEOA	COR02T	
Cartographic Techniques	Maps: Classification and types. Components of a map	60	M.M	July- August
	Concept and application of scales: Plain, comparative and diagonal		D.B	September to November
	Survey of India topographical maps: Reference scheme of old and open series. Information on the margin of maps		A.S	September to November
	Coordinate systems: Polar and rectangular		D.B	November- December
	Concept of generating globe and UTM projection		M.N	December- January
	Map projections: Classification, properties and uses		S.K & A.C	December- January
	Graphical construction of scales: Plain, comparative and diagonal		D.B	September to November

		Paper (Code: GEOA	COR02P	
	Cartographic Techniques	Construction of projections: Polar Zenithal Stereographic, Bonne's, Cylindrical Equal Area, and Mercator's	60	A.C, S.K & M.N	November- December
		Delineation of drainage basin from Survey of India topographical map, relative relief map, slope map (Wentworth), and stream ordering (Strahler) on a drainage basin.		A.S	December- January
		Correlation between physical and cultural features from Survey of India topographical maps using transect chart.		O.M	December- January
		Paper (Code: GEOA	COR05T	
	Unit I: Elements of the Atmosphere	Nature, composition and layering of the atmosphere		O.M	July-August
		Insolation: controlling factors. Heat budget of the atmosphere		O.M	August- September
SEMESTER III Honours		Temperature: horizontal and vertical distribution. Inversion of temperature: types, causes and consequences		D.B	September- October
SEM		Greenhouse effect and importance of ozone layer		A.C	November- December
	Unit II: Atmospheric Phenomena and Climatic Classification	Condensation: Process and forms. Mechanism of precipitation: Bergeron-Findeisen theory		S.K	July-August

	Air mass: Typology	I	August
	Air mass: Typology, origin, characteristics and modification	A.S	August- September
	Weather: stability and instability; barotropic and baroclinic conditions	M.N	September- October
	Circulation in the atmosphere: Planetary winds, jet stream, index cycle	M.N	November- December
	Tropical and mid- latitude cyclones	M.M	November- December
	Monsoon circulation and mechanism with reference to India	M.M	December - January
	Climatic classification after Köppen	A.S	December - January
Climatals	Paper Code: Cogy Interpretation of daily	JEOACOR05P	
Climatolo	weather map of India: Monsoon	D.B	July- December
	Construction and interpretation of hythergraph and climograph (G. Taylor)	A.S	September- November
	Construction and interpretation of wind rose	M.N	December- January
	Paper Code: 0	SEOACOPOET	
Unit I:			
Geograp of India	hy Physiographic		
	Climate and soil: Characteristics and classification	A.S	July-August
	Population: Distribution, growth, structure and policy	A.S	August- September
	Tribes of India with special reference to Toda and Jarwa	O.M	September- October
	Agricultural regions. Green revolution and its consequences	M.N	November- December

	Mineral and power resources distribution and utilisation of iron ore, coal and petroleum		M.N	December- January
	Industrial development: Automobile and information technology		A.C	December- January
	Regionalisation of India: Economic (P. Sengupta)		M.M	July-August
Unit II: Geography of West Bengal	Physical perspectives: Physiographic divisions, forest and water resources		M.N	November- December
	Resources: Agriculture, mining, and industry		M.M	November- December
	Population: Growth, distribution and human development	6	S.K	December - January
	Regional Issues: Darjeeling Hills and Sundarban		A.C	December - January
	Paper	Code: GEOA	COR07T	
Unit I: Frequency Distribution and Sampling	Importance and significance of statistics in Geography		M.M	July-August
	Discrete and continuous data, population and samples, scales of measurement (nominal, ordinal, interval and ratio)		M.M	August- September
	Sources of geographical data for statistical analysis		S.K	September- October
	Collection of data and formation of statistical tables		D.B	November- December



		Sampling: Need, types, and significance and		D.B	
		methods of random sampling Theoretical			December- January
		distribution: frequency, cumulative		M.N	
		frequency, normal and probability			December- January
	11	Control tondonou			
	Unit II: Numerical Data Analysis	Central tendency: Mean, median, mode, partition values		A.S	July-August
	Data / maryolo	Measures of dispersion range,			
		mean deviation, standard deviation,		A.S	August-
		coefficient of variation			September
		Association and correlation: Rank		M.N	
		correlation, product moment correlation			September- October
		Regression: Linear and non-linear	6	M.N	November- December
		Time series analysis: Moving average		S.K	December - January
-		Dener		00070	
	Statistical	Construction of data	Code: GEOA	LORU/P	July August
	Methods in	matrix with each row			July- August
	Geography (Lab)	representing an areal unit (districts / blocks / mouzas / towns) and		O.M	
		corresponding columns of relevant			
		attributes			
		Based on the above, a frequency table,			August- October
		measures of central tendency and			
		dispersion would be computed and		O.M	
		interpreted using			

		Based on of the sample set and using two relevant attributes, a scatter			November- December	
		diagram and linear regression line would be plotted and residual from		M.N		
		 regression would be mapped with a short interpretation				
		Paper	Code: GEOS	SEC01M		
		Principles of Remote Sensing (RS): Classification of RS satellites and sensors		D.B	July- December	Students prepare a project report
		Sensor resolutions and their applications with reference to IRS image		D.B		
		referencing schemes and data acquisition. Concept of False Colour Composite		D.B		
		from IRS LISS-3 Principles of image interpretation and feature extraction. Preparation of inventories of land use land cover features from satellite images.		D.B		
		nom satellite images.				
			Code: GEOA	COR11T	Γ	
		Research in Geography: Meaning, types and significance		M.M	July-August	
х <	S	Literature review and formulation of research design		A.C	August- September	
SEMESTER V	Honours	 Defining research problem and objectives		A.C	September- October	
SEV	I	Research materials and methods		A.C	November- December	
		Techniques of writing scientific reports: Preparing notes, references,		M.M	December- January	
		2				

1	hibliography shetrast	1	l	l í
	bibliography, abstract and keywords			
	Fieldwork in			July-August
	Geographical studies: Role and significance. Selection of study area and objectives. Pre- field academic preparations. Ethics of fieldwork		M.N	
	Field techniques and tools: Observation (participant, non participant), questionnaires (open, closed, structured, non-structured). Interview		M.N	August- September
	Positioning and collection of samples. Preparation of inventory from field data.	6	D.B	September- October
	Post-field tabulation, processing and analysis of quantitative and qualitative data		D.B	November- December
	Paner	Code: GEOA	COR11P	
	Literature Review		M.N & A.C	August- January
2	Field Report		A.S, D.B, O.M, M.M & S.K	August- January
	Dener	Code: GEOA	COP12T	
	Classification of hazards and disasters.		M.N	July-August
	Approaches to hazard study: Risk perception and vulnerability assessment. Hazard paradigms		A.S	August- September

Responses to hazards: Preparedness, trauma and aftermath. Resilience and capacity building.	A.S	September- October
Hazards mapping: Data and geospatial techniques (for hazards enlisted in Unit II and Core 12P) (Proposed Workshop	Proposed extension lecture	November- December
Earthquake: Factors, vulnerability, consequences and management	0.M	December- January
Tropical Cyclone: Factors, vulnerability, consequences and management Riverbank erosion:	M.M	
	S.K e: GEOACOR12P	
An individual Project Report is to be prepared and submitted based on any one case study among the following disasters of West Bengal:	M.N, A.S, D.B, A.C, O.M, M.M &	July- January
1) Cyclone/ Thunderstorm, 2) Landslide, 3) Flood, 4) Coastal/ riverbank erosion, 5) Fire, 6) Industrial accident, 7) Structural collapse.	S.K	
Paper Code	e: GEOADSE01T	
Factors or soil formation. Man as an active agent of soil transformation.	M.M	July- August
Soil profile. Origin and profile characteristics of Lateritic and Chernozem soils	0.M	July- August
9		

	Definition and significance of soil properties: Texture, structure and moisturiser		Collaboratio n class	August
	Definition and significance of soil properties: pH, organic matter and NPK		Collaboratio n class	September
	Soil erosion and degradation: Factors, processes and mitigation measures		A.S	October- November
	Principles of soil classification: Genetic and USDA.		A.S	November- December
	Concepts of biosphere, ecosystem, biome, ecotone, community, niche, succession and ecology		M.N	July- August
	Concepts of trophic structure, food chain and food web.		M.N	July- August
	Geographical extent and characteristic features of: Tropical rain forest and Grassland biomes		M.M	August
	Bio-geochemical cycles with special reference to carbon dioxide and nitrogen		M.N	September
2	Measures for conservation of bio- diversity in India: Man and Biosphere Programme		M.N	October- November
	Paper Scope and content of	Code: GEOA	ADSE02T	
	Settlement Geography; rural, urban and peri-urban areas		M.M	July- August
	Rural Settlement: Definition, nature and characteristics		A.C	August

Morphology of rural settlements: site and situation, layout- internal and external	M.N	September
Rural house types with reference to India, Social segregation in rural areas; Census categories of rural settlements.	M.N	October- November
Problems and policies related to rural infrastructure with reference to India	0.M	November- December
Urban Settlements: Census definition (Temporal) and categories in India	A.S	July- August
Urban morphology: Classical models: Burgess, Homer Hoyt, Harris and Ullman Metropolitan concept	A.S	August
City-region and Conurbation, Functional classification of cities: Nelson and McKenzie	M.N	September
Aspects of urban places: Location, site and situation, Size and spacing of cities: the rank size rule, the law of the primate city	S.K	October- November
Urban hierarchies: Central Place Theory	S.K	November- December



			For EV	'EN Se	mester	'S		
			_	Code: GEO				
		Unit I: Nature and Principles	Nature, scope and recent trends. Elements of Human Geography		S.K	February		
			Approaches to Human Geography; Environmental		S.K	February		
			Concept and classification of race		S.K	March		
			Cultural regions (language and religion)		S.К	March		
		Unit II: Society, Demograph y and Ekistics	Evolution of human societies: Hunting and food gathering, pastoral nomadism, subsistence farming and industrial society	90	M.M	February		
=			Human adaptation to environment: Masai	6	M.M	February- March		
SEMESTER I	Honours		Population growth and distribution, demographic transition		M.M, M.N	March		
SEN	Ĭ		Types and patterns of rural settlements	·	0.M	March- April		
			Morphology of urban settlements		O.M	April		
		Paper Code: GEOACOR04T						
	2	Cartograms and Thematic Mapping	Concepts of rounding, scientific notation, logarithm and anti- logarithm, natural and log scales		D.B	February- March		
			Diagrammatic representation of data: Line, Bar, Isopleths	60	A.S	March		
			Representation of socio-economic data: Dots and spheres, proportional circles and Choropleth		A.S	March- April		

			Bearing: Magnetic and true, whole-circle and reduced		M.N	February
			Basic concepts of surveying and survey equipment: Prismatic Compass, Dumpy Level, Theodolite		D.B	March- May
			Paper	Code: GEO	ACOR04P	
		Cartograms and Thematic Mapping lab	Thematic maps:			
			 Choropleth showing density of population 		A.S	February
			 Dots and Spheres diagram showing distribution of rural and urban population. 	60	A.S	March
			 Proportional pie- diagrams representing economic data and land use data 		A.S	March
			Traverse survey using prismatic compass, Profile survey using dumpy Level		D.B	March- May
·						
				Code: GEO		,
		Unit I: Regional Planning	Concept of regions: Types of regions and their delineation		A.C	February
R N	rs		Regional Planning: Types, principles, objectives		A.C	February- March
STE	Honours		Multi- level planning in India	00	A.C	March
SEMESTER IV	Ног		Metropolitan concept and urban agglomerations	90	A.C	April
				1		



M.N

February

Unit-II:

Regional

Developmen t

Concepts of growth

and development

	Economic, social and environmental		O.M	March
-	Human development: Concept		0.M	April
-	Cumulative causation model for regional	-	D.B	March
-	development (Myrdal) Concept and causes of underdevelopment	-	D.B	April
-	Regional development in India: Disparity and diversity	-	D.B	June
			ю т	
Unit-I:	Concepts in Economic	GEOACORO	0.M	February
Concepts	Geography: Goods and services, production, exchange and consumption		C ²	
-	Concept of economic man		0.M	March
-	Economic distance and transport costs	CV I	0.M	April
Unit-II: Economic Activities	Concept and classification of economic activities		A.C	February
	Factors affecting location of economic activity with special reference to industry (Weber).	60 -	A.C	February
	Secondary activities: Concept of manufacturing regions, special economic zones and technology parks	00 -	A.C	March
	Tertiary activities: Transport and services		M.M	March
-	Agricultural systems: Case studies of tea plantation in India and mixed farming in Europe	-	M.N	April
	International trade and economic blocks: WTO, GATT and BRICS: Evolution, structure and functions		M.M	May
	14			

		GEOACOR1	ОТ			
Unit-I: Concepts	Concept of holistic environment and systems approach		A.S	February		
	Ecosystem: Concept, structure and functions		A.S	March		
Unit-II: Environment al problems and policies	Urban environmental issues with special reference to waste management		S.K	March		
	Environmental policies – National Environmental Policy, 2006, Earth Summits (Stockholm, Rio, Johannesburg)	60	S.K	April		
	Global initiatives for environmental management (special reference to Montreal Protocol, Kyoto Protocol, Paris Climate Summit)		S.K	May		
GEOACOR10P						
Environment al Geography Lab	Preparation of questionnaire for perception survey on environmental problems		A.S	February- March		
	Preparation of check- list for Environmental Impact Assessment of an urban / industrial project	60	A.C	March- April		
	Interpretation of air quality using CPCB / WBPCB data		D.B	April- May		
		GEOSSEC02	м			
Advance Spatial Statistical Techniques	Probability theory, probability density functions with respect to Normal, Binomial and Poisson distributions and their	30	S.K	February- April	Project prepared by the student	

	geographical applications.				
	Sampling: Sampling plans for spatial and non-spatial data, sampling distributions. Sampling estimates for		S.K		
	large and small samples tests involving means and proportions. Correlation and		S.K	84	
	Regression Analysis: Rank order correlation and product moment correlation; linear regression, residuals from regression, and simple curvilinear regression. Introduction to multi-		SCR		
	variate analysis. Time Series Analysis: Time Series processes; Smoothing time series; Time series components.		S.K		
		GEOACOR	L3T		
Na Pre	Jnit I: Development of ture of Geography: Modern Contributions of Greek and Chinese geographers		A.C	February- March	
S K	Impact of 'Dark Age' in Geography and Arab contributions		A.C	March	
SEMESTER VI Honours	Geography during the age of 'Discovery' and 'Exploration' (contributions of Columbus, Vasco da Gama, Magellan)	90	A.C	March- April	
	Dualism and Dichotomies (Ideographic vs. Nomothetic, Physical		A.C	April	
	16				

 	-		I				
	vs. Human, Determinism vs. Possibilism,)						
Unit-II: Foundations of Modern	Evolution of Geographical thoughts in Britain and United		A.C	February- March			
Geography and Recent Trends	States of America Contributions of		A.C	March-			
Trends	Humboldt and Ritter Contributions of Ratzel and Vidal deLaBlaché		A.C	April March- April			
	Trends of geography in the post-World War-II period: Quantitative Revolution, systems approach.		A.C	April			
	Evolution of Critical Geography: Behavioural, humanistic and radical.	6	A.C	May			
	GEOACOR14T						
Unit I: Remote Sensing	Principles of Remote Sensing (RS): Types of RS satellites and sensors		M.N	February			
	Sensor resolutions and their applications with reference to IRS and Landsat missions		M.N	March			
	Preparation of False Colour Composites from IRS LISS-3 and Landsat TM and OLI data.	60	M.N	March			
	Principles of image correction and interpretation. Preparation of inventories of landuse land cover (LULC) features from satellite		M.N	April			

Unit II: Geographical Information System and Global Navigation	Concept of GIS and its applicability ; GIS data structures: types: spatial and non- spatial, raster and vector		M.N	February
Satellite System	Principles of preparing attribute tables and data manipulation and overlay analysis		D.B	March
	Principles of GNSS positioning		D.B	April
	(GEOACOR1	L4P	
Remote Sensing and GIS	Preparation of land use and land cover map from standard FCC and its interpretation		D.B	February
	Representation of raster and vector data format.	60	0.M	March
	Area and length calculations from GNSS data.	6	D.B	April
GEOACORDSE04T				
Unit I: Hydrology	Systems approach in hydrology. Global hydrological cycle: Its physical and biological role		0.M	February
	Run off: controlling factors. Infiltration and evapotranspiration.		0.M	February
	Drainage basin as a hydrological unit. Principles of watershed management	90	O.M	March
	Groundwater: Occurrence and storage. Factors controlling recharge, discharge and movement		0.M	April

Unit II: Oceanograph y	Major relief features of the ocean floor: characteristics and origin according to plate tectonics		M.M	February
	Physical and chemical properties of ocean water		M.M	February- March
	Water mass, T–S diagram		M.M	March
	Ocean temperature and salinity: Distribution and determinants		M.M	April
	G	EOACORDS	Е06Т	
Unit I: Resource and Developmen t	Approaches to Resource Utilization: Utilitarian, Conservational, Community based adaptive		S.K	February
	Significance of Resources: Backbone of Economic growth and development	6	S.K	February- March
	Problems of resource depletion—global scenario (forest, water, fossil fuels).		S.K	March
	Conservation of Natural Resources	90	S.K	April
Unit II: Resource Conflict and Management	Distribution, Utilisation, Problems and Management of Mineral Resources: Bauxite and Iron Ore.		A.S	February
	Distribution, Utilisation, Problems and Management of Energy Resources: Conventional and Non- Conventional		A.S	February- March
	Concept of Resource sharing: Water		M.N	March

Semester	(Hons /General)	Internal Assessment	University
		(Tentative time)	Examination
I	Hons.	1 st Internal Assessment- 2 nd Week of September, 2021	January, 2022 (Tentative)
		2 nd Internal Assessment- 2 nd Week of November, 2021	
11	Hons.	1st Internal Assessment- 3rd Week of April, 2021	July, 2022 (Tentative)
		2nd Internal Assessment- 2nd Week of May, 2021	
111	Hons.	1st Internal Assessment- 2nd Week of September, 2021	January, 2022 (Tentative)
		2nd Internal Assessment- 2nd Week of November, 2021	
IV	Hons.	1st Internal Assessment- 3rd Week of April, 2021	July, 2022 (Tentative)
		2nd Internal Assessment- 2nd Week of May, 2021	
V	Hons.	1st Internal Assessment- 2nd Week of September, 2021	January, 2022 (Tentative)
		2nd Internal Assessment- 2nd Week of November, 2021	
VI	Hons.	1st Internal Assessment- 3rd Week of April, 2021	July, 2022 (Tentative)
		2nd Internal Assessment- 2nd Week of May, 2021	

