

1ST SEMESTER GEOGRAPHY

GEO MORPHOLOGY

GEOMA11(C1)

UNITS	NAME	CONTENTS	L	T	P	TOTEL HOURS
1 (15 MARKS)	Introduction to Geomorphology	a) Geomorphology : Meaning and Definition ,nature and scope b) Fundamental Geomorphic concepts. c) Recent trend of development of Geomorphology .	12	2		14
2 (15 MARKS)	Geomorphic processes (Endogenetic)	a) Earth : Interior structure and Isostasy. b) Earth Movement: Types of Fold and Fault, Plate Tectonic , concept of Geosyncline , Earthquake and volcanoes. c) continental Drift Theory	13	2		15
3 (15 MARKS)	Geomorphic processes (Exogenetic) Evolution of landforms	a) Exogenetic processes – Weathering , Mass wasting . b) cycle of Erosion (Davis and penck) c) Evolution of landform (Erosional and depositional): Fluvial , karst , Aeolian , Glacial , and coastal.	14	2		16
4 (15 MARKS)	PRACTICAL	a) Topographical Map – Interpretation of topographical Map, Profile Drawing (serial , superimposed , projected and composite) . b) Interpretation of Transact charts . c) Morphometric Analysis : Drainage ordering , basin area demarcation , drainage density , Bifurcation Ratio .		2	28	30
		total	39	8	28	75

1ST SEMESTER GEOGRAPHY
GEOMORPHOLOGY AND OCEANOGRAPHY

GEOMIN1

UNITS	NAME	CONTENTS	L	T	P	TOTEL HOURS
1 (15 MARKS)	Introduction to Geomorphology	a) Meaning and scope of Geography b) Geomorphology : Meaning and Definition ,nature and scope c) Fundamental concept of Geomorphology	12	2		14
2 (15 MARKS)	Geomorphic processes (Endogenetic and Exogenetic)	a) Earth : Interior structure and Isostasy. b) Earth Movement: Types of Fold and Fault, Plate Tectonic , Earthquake and volcanoes. c) Exogenetic process –Weathering , Mass Wasting . d) Cycle of Erosion Davis and penck.	15	2		17
3 (15 MARKS)	Introduction to oceanography	a) Meaning nature and scope of Oceanography . b) ocean floor Topography and oceanic movement – Waves , currents and Tides. c) Ocean salinity and Temperature Distribution and determinats .	12	2		14
4 (15 MARKS)	PRACTICAL	Topographical Map – Interpretation of topographical Map, Profile Drawing (serial , superimposed , projected amd composite) . Stream ordering ,Bathymetric and hypsometric curve.	08	2	20	30
		total	47	8	20	75

1ST SEMESTER GEOGRAPHY

PHYSICAL GEOGRAPHY

GEOGEC1

UNITS	NAME	CONTENTS	L	T	P	TOTEL HOURS
1 (10 MARKS)	Introduction to Physical Geography	a) physical Geography Meaning and scope . b) Interrelations with other branches of earth science .	5	1		6
2 (18 MARKS)	Atmosphere	a) Definition , composition and structure of Atmosphere b) Temperature : Factors and distribution of Insolation and heat Budget . c) Atmosphere moisture – Evaporation , condensation , Humidity , precipitation and its type . d) Atmosphere pressure and winds, types of planetary winds .	12	1		13
3 (17 MARKS)	Lithosphere and Biosphere	a) Earth's Interior and structure . b) Earth Movement : orogenic and Epeirogenic . c) Earthquakes and Volcanoes (distribution , causes effects) d) Soil and soil forming processes	12	1		13
4 (15 MARKS)	Hydrosphere	a) Concept of Hydrological cycle . b) Meaning and scope of oceanography . c) - Ocean floor Topography and oceanic Movement – waves , current , tides . d) Ocean salinity and Temperature ,Distribution and Determinates.	12	1		13
		total	41	4		45

1st SEMESTER [SEC]
DISASTER MANEGEMENT
SEC1

UNITS	NAME	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Disasters	a. Disasters: Definition and Concepts: Hazards, Disasters; Risk and Vulnerability; Classification b. Manmade disasters: Causes, Impact and Distribution	9	1		10
2 [15 marks]	Disasters in India	a. Disasters in India :Earthquake, Tsunami, Drought- Causes, impact and distribution. b. Disasters in India : Flood, cyclone, landslide; Causes impact and distribution	9	1		10
3 [15 marks]	Response and Mitigation to Disasters	a. Response and Mitigation to Disasters: Mitigation and Preparedness, NDMA and NIDM; Indigenous Knowledge and Community-Based Disaster Management; Do's and Don'ts During and Post Disaster.	9	1		10
4 [15 marks]	Field Work (Practical)	a. Field Work (Flood, Landslide, Drought, Earthquake, Cyclone and Manmade Disaster)		2	43	45
		TOTAL	27	5	43	75

2nd SEMESTER [MAJOR]

CLIMATOLOGY

GOMAJ2

UNITS	NAME	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Composition Structure and Temperature of Atmosphere	a. Climatology: Meaning, Nature and Scope. b. Atmospheric Composition and Structure. c. Temperature Distribution, Insolation, Heat Budget, Temperature Inversion	10	2		12
2 [15 marks]	Atmospheric Pressure and Winds	a. Planetary winds, forces affecting planetary wind, Global circulation of permanent wind system and jet streams. b. Concept of Airmass and Fronts, cyclones and Anticyclones, Local winds.	13	3		16
3 [15 marks]	Atmospheric Moisture, Weather and Climate	a. Evaporation, Humidity Condensation, Fog and Clouds, Precipitation and its types. b. Elements and factors of weather and climate. c. Climatic classification: Koeppen and Thornthwaite.	15	2		17
4 [15. marks]	Practical	a. Study of weather symbols and Interpretation of weather map. b. Representation of climatic data: [i] Preparation Of Climograph, Hythergraph and Ergograph and their interpretation [ii] Rainfall distribution map of Assam		2	28	30
TOTAL			38	9	28	75

2ND SEMESTER [MINOR]

CLIMATOLOGY AND BIOGEOGRAPHY

GEOMIN2

UNITS	NAME	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Introduction to Climatology	a. Meaning, Nature and scope of climatology. b. Composition and structure of Atmosphere c. Temperature distribution, Insolation, Temperature inversion.	12	1		13
2 [15 marks]	Atmospheric Pressure and Wind	a. Atmospheric Pressure and wind: Planetary wind, Forces affecting winds, General circulation, Jet Streams. b. Concept of Airmass and Fronts, Cyclones and Anticyclones, Local winds c. Evaporation, Humidity, Condensation, Fog and Clouds, Precipitation and its types d. Koeppen's climatic classification	14	1		15
3 [15 marks]	Biogeography	a. Bio-geography: Meaning, Scope and Significance. b. World distribution of plants and its relation to soil, climate and Human activities. c. Soil: Soil forming processes, classification and distribution of soil, soil horizon and profile, Major soil type of India.	15	2		17
4 [15 marks]	Practical	a. Interpretation of various weather symbols depicted on maps b. Preparation of rainfall-temperature graphs; Hythergraph and Climograph c. Mapping of protected areas (National Park, biosphere reserve and wildlife sanctuary) of India. Mapping of Biodiversity hotspots of the world and India.	7	3	20	30
TOTAL			48	7	20	65

2nd SEMESTER [GEC]
FUNDAMENTAL OF GEOMORPHOLOGY
GEOGEC2

UNITS	NAME	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Principles of Geomorphology	a. Meaning, nature and scope. b. Fundamental concepts in Geomorphology. c. The place of Geomorphology in Physical Geography.	8	4		12
2 [15 marks]	Interior of The Earth	a. Earth's Interior: Wegener's continental drift theory. b. Earthquake and Volcanoes.	6	3		9
3 [15 marks]	Evolution of Landforms due to Endogenetic Forces	a. Earth movement: orogenic and epeirogenic b. Folds and Faults. c. Plate tectonics: Types of plates and plate boundaries, mountain building theory of Kober	8	4		12
4 [15 marks]	Evolution of Landforms due to Exogenetic Forces	a. Weathering and Mass-wasting: concept and types. b. Work of running water, underground water, Glacier and wind	8	4		12
		TOTAL	30	15		45

2RD SEMESTER[SEC]

METHOD OF TECHINQUIS OF FIELD STUDY

SEC2

UNIT	NAME	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Introduction	a. Field study and its importance in Geography b. Types of data	5	1		6
2 [15 marks]	Techniques of data collection	a. Techniques of data collection: Primary and Secondary b. Preparation of questionnaire and schedule c. Data tabulation, processing and analysis	10	2		12
3 [15 marks]	Designing the field report	a. Designing the field study report: Aims and objectives, methodology and interpretation. b. Use of Tables, Charts, Diagrams, Maps and Photographs in the report	10	2		12
4 [15 marks]	Practical	a. Field study and data collection b. Preparation and presentation of report		2	43	45
		total	25	7	43	75

3RD SEMESTER GEOGRAPHY

HUMAN , POPULATION AND SETTLEMENT GEOGRAPHY

GEOMAJ3(C3)

UNITS	NAME	CONTENTS	L	T	P	TOTEL HOURS
1 (10 MARKS)	HUMAN GEOGRAPHY	a) Human Geography: Definition, nature ,scope and different branches . b) Approaches to the study of human Geography . c) Human adaptation to various geographical condition (polar, desertic and equatorial region) d) Human groups (races): classification and their spatial distribution.	14	2		16
2 (18 MARKS)	POPULATION GEOGRAPHY	a) Definition , nature and scope . b) Population Growth, factors affecting distribution and density of population. c) Population growth theory Malthusian, Demographic transition theory. d) Population Dynamic : Measure of fertility ,Mortality and Migration – Measures and determinats.	14	2		16
3 (17 MARKS)	SETTLEMENT GEOGRAPHY	a) Settlement : concept , origin and classification . b) Rural settlement : evolution , site and situation factors , patterns and types. c) Urban settlement Growth, functional classification of town d) Hierachy of settlement ,primate city and urban fringe , christaller's central place theory .	12	1		13
4 (15 MARKS)	PRACTICAL	a) Preparation of population growth curve – Assam and India b) Preparation of population distribution and density maps of Assam and India. c) Age- sex pyramid for developed and developing countries. d) Nearest neighbour analysis		10	20	30
		total	40	15	20	75

3RD SEMESTER [MAJOR]

REMOTE SENSING AND GIS IN GEOGRAPHY

GEOMAJ3(C4)

UNITS	NAME	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Remote Sensing	a. Meaning and definition of Remote Sensing, Principles of Remote sensing, Historical Development of Remote sensing. b. Types of Remote sensing (Air born, space borne) Platforms and Types of Satellites, sensors. C. Electromagnetic Spectrum, EMR Interactions with Atmosphere and earth surface.	12	3		15
2 [15 marks]	GIS	a. Meaning and definition of GIS, Components, Historical development. b. Spatial and non-spatial data, Raster and Vector data Structure C. Collection of Spatial Data: Point, Line, Polygon.	12	3		15
3 [15 marks]	Fundamentals of Digital Image	a. Digital image and its types b. Characteristics: Spectral, Spatial, Radiometric and Temporal resolution c. Elements of Image Interpretation d. Digital Image Processing: Components and Steps.	12	3		15
4 [15 marks]	Practical	a. Satellite Image interpretation, Delineation of landforms, river basin, land use/land cover. b. GPS: Ground verification c. Concept of visual and digital images processing, Geo-Referencing, radiometric and geometric Correction, filtering, editing and output using GIS Software		2	28	30
TOTAL			36	11	28	75

3RD SEMESTER GEOGRAPHY

HUMAN, SOCIAL AND CULTURAL GEOGRAPHY

GEOMIN-3

UNITS	NAME	CONTENTS	L	T	P	TOTEL HOURS
1 (10 MARKS)	HUMAN GEOGRAPHY	a) Definition , Nature , major Branches of Human Geography. b) Schools: Determinism , possibilism and Neo-Determinism ; c) Human Groups(races) : Classification and their spatial distribution .	12	3		15
2 (18 MARKS)	SOCIAL GEOGRAPHY	a) Definition , nature and scope of social Geography . b) Concept and types of space in social Geography . c) Social problem in India : Education , health, Houshing and crime . d) Social categories : caste , religion, race and their spatial distribution .	12	3		15
3 (17 MARKS)	SETTLEMENT GEOGRAPHY	a) Settlement : concept , origin and classification . b) Rural settlement : evolution , site and situation factors , patterns and types. c) Urban settlement Growth, functional classification of town . d) Hierachy of settlement ,primate city and urban fringe , christaller's central place theory .	12	3		15
4 (15 MARKS)	PRACTICAL	a) Preparation of population growth curve – Assam and India b) Preparation of population distribution and density maps of Assam and India. c) Age- sex pyramid for developed and developing countries. d) Histogram, line graph , pie diagram.	8	2	20	30
		total	44	11	20	75

3RD SEMESTER [GEC]

SETTLEMENT GEOGRAPHY

GEOGEC3

UNITS	NAMES	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Introduction to Settlement Geography	a. Definition, nature and scope of settlement Geography b. Settlement: Definition and Types c. Factors affecting settlement distribution	6	3		9
2 [15 marks]	Rural Settlement	a. Origin and growth of rural settlement b. Types and Patterns of Rural Settlement c. Evolution of rural settlement and problems of rural settlement in India	8	4		12
3 [15 marks]	Urban Settlement	a. Origin and growth of Urban settlement b. Basis of Classification and Functional classification of town, problems of urban settlement in India c. Trend of urbanization and problems of urbanization in India	8	4		12
4 [15 marks]	Settlement Theories	a. Central place theory of Christaller b. Rural-Urban dichotomy and continuum	8	4		12
		TOTAL	30	15		45

3rd SEMESTER [SEC]
CARTOGRAPHIC TECHNIQUES

SEC3

UNITS	NAME	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Introduction to Cartography	a. Definition, Representation of scale, Notation of Scale (Representative Fraction, Verbal notation, [Graphical]). Types of scale: plain, comparative, Diagonal and Vernier. b. Maps: Concept and types c. Co-Ordinate System of Earth; Latitude Longitude and their importance;	9	1	-	10
2 [15 marks]	Map Projection	a. Map Projection: concept, classification, Principles of construction (Zenithal , Conical, and Cylindrical). b. Choice of map projection (World or any part).	9	1	-	10
3 [15 marks]	Surveying	a. Basic principles of surveying and their necessity in geography, Vertical and Horizontal control. b. Surveying and Levelling <ol style="list-style-type: none"> i. Plane table surveying different method ii. Prismatic compass surveying - close and open traverse. iii. iii. Theodolite traversing measurement of height 	8	2	-	10
4 [15 marks]	Practical	a. Construction of comparative and Diagonal scale b. Use of Prismatic Compass (measuring the length of, angle of the roads) c. Use of theodolite, measuring the height of (tree, town , building etc) near our college campus.		2	28	30
TOTAL			26	6	28	60

4th SEMESTER GEOGRAPHY
 ENVIRONMENTAL GEOGRAPHY
 GEOMAJ 4 (C-5)

UNITS	NAME	CONTENTS	L	T	P	TOTEL HOURS
1 (10 MARKS)	Environment Geography	a) Concept, nature and scope of environmental geography . b) Ecology : Meaning ,Nature , Types , principles of ecology .	12	3	-	15
2 (18 MARKS)	Ecosystem	a) Ecosystem : concept , Types , structure and functions. b) Concept of Biodirversity and relevance of its preservation. c) Biomes: concept and Types.	12	3	-	15
3 (17 MARKS)	Environmental Problems	a) Environmental degradation – pollution, its causes and types . b) Environmental Hazards : Meaning and types. c) Policies of environmental protection and conservation, concept of EIA.	12	3	-	15
4 (15 MARKS)	PRACTICAL	Field observation and Data collection <ul style="list-style-type: none"> • Conduct a field trip to a nearby ecosystem(such as a forest, wetland, etc) and observe the physical features of the environment and problems faced therein. • Collect data on various environmental parameters like temperature, humidity, wind speed/soil composition using appropriate instrument. • Identify and document different species of plants and animals found in the area. 		2	43	45
		total	36	11	43	90

4TH SEMESTER [MAJOR]

POLITICAL GEOGRAPHY

GEOMAJ4(C-6)

UNITS	NAMES	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Conceptual Basis of Political Geography	a. Concept, Nature, Scope and approaches to Political Geography. b. State: Concept, elements; Geographical attributes of state: size, shape, location. c. Nation: Concept, nation building factors, nation state	12	2		14
2 [15 marks]	Geopolitical Theories	a. Frontier: Concept and types; Boundary: Concept, functions b. Geopolitics : Concept and its evolution. c. Geostrategic Theories of Mahan, Mackinder and Spykman.	12	2		14
3 [15 marks]	Electoral Studies in Geography and Resource Disputes	a. Electoral Geography: Concept and its importance in geography. b. Factors influencing voting behaviour c. Water Sharing Disputes: International (India, Pakistan and Bangladesh)	15	2		17
4 [15 marks]	Practical	a. Map of reorganization of North East India (1951, 1971, 1991) b. Shape Index by Chorley and Haggett method: India (Pre-Independent and Post-Independent), Chile and France. c. Map showing the territory of the major Autonomous Councils of Assam.		4	26	30
TOTAL			39	10	26	75

4th SEMESTER [MAJOR]

STATISTICAL METHODS IN GEOGRAPHY

GEOMAJ4(C-7)

UNITS	NAMES	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Introduction to Statistical Methods	a. Statistical methods in Geography- its significance and limitations. b. Geographical Data: Nature, types and sources. c. Scale of measurement- Nominal, Ordinal, Interval and Ratio.	10	3		13
2 [15 marks]	Measures of Central Tendency and Dispersion	a. Central tendency: Mean, median (partitioned values) and mode b. Dispersion: Range, quartile deviation, mean deviation, standard deviation c. coefficient of variation- their application in geographical data analysis.	13	3		16
3 [15 marks]	Data collection techniques and analysis	a. Sampling and its types: Purposive, random, systematic and stratified b. Correlation: Meaning, coefficient of correlation (Spearman's rank correlation, Pearson's product moment correlation). c. Regression analysis: Simple regression and Residuals from regression.	13	3		16
4 [15 marks]	Practical on statistical methods	a. Tabulation/Grouping of data for preparing frequency distribution table, preparation of Histogram, Frequency Polygon and Frequency Curve b. Computation of mean, median and mode (grouped and ungrouped data) and their graphical representation. c. Lorenz curve d. Variability map using co-efficient of variation		2	28	30
TOTAL			36	11	28	75

4th SEMESTER [MAJOR]

BIOGEOGRAPHY AND OCEANOGRAPHY

GEOMAJ4(C-8)

UNITS	NAMES	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Biogeography	a. Definition, scope and significance b. World distribution of plants and its relation to climate, soil and human activities c. World distribution of animal and its relation to climate, vegetation and human activities d. Soil: soil forming processes, classification and distribution of soil, soil horizon and profile, soil erosion and conservation ; importance of soil e. Major soil types of India and Assam.	20	2		22
2 [15 marks]	Oceanography	a. Oceanography: Meaning and significance. b. Configuration of ocean floor topography c. Salinity and temperature of ocean water. d. Ocean currents of the Atlantic, Pacific and Indian oceans. e. Importance of oceans as store house of resources.	20	3		23
3 [15 marks]	Practical	a. Mapping of Phytogeographic and Zoogeographic regions of the world. b. Mapping of protected areas (National Park, Biosphere reserve and wildlife sanctuary) of Assam/ North East India/ India. c. Drawing of Hypsometric and Bathymetric curve		2	28	30
TOTAL			40	7	28	75

4TH SEMESTER [MINOR]

GEOGRAPHY OF RESOURCES AND ECONOMY

GEOMIN4

UNITS	NAMES	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Geography of Resources	a. Resources: Meaning, definition and classification. b. Man and resources: Concept related with resources utilization, conservative and management etc. c. Fundamental theory of resources.	12	2		14
2 [15 marks]	Natural resources and economic development	a. World Distribution and Utilization, problem and management of land, water, forest resources. b. Distribution of coal, petroleum, Iron-ore and energy resources and its contribution to economic development in India. c. Appraisal and Conservation of Natural Resources	14	2		16
3 [15 marks]	Economic Development and Resource use	a. Pattern of development : Developed and Developing Country b. Sustainable resources development. c. Use of technology in resource utilization and management.	12	3		15
4 [15 marks]	Practical on Resource And Economic Development	a. Determination of levels of development in India/North-East India/Assam based on few development indicators using simple/mean ranking method. b. Mapping of spatial variation of category-wise forest cover (very dense, moderate dense and open forest) in Assam/ North East India using a suitable cartographic technique c. Preparation of thematic map of Assam/North East India (e.g Wildlife sanctuaries/national parks, mineral and power resources.)		2	28	30
TOTAL			38	9	28	75