Barrackpore Rastraguru Surendranath College

Teaching Plan

Department of Geography

2022-23

NAME OF THE PROGRAMME

B.SC. Honours in Geography

PROGRAMME OUTCOME

- Tounderstandthescopeandevolutionofthediversedisciplineof Geography.
- Recognize,synthesizeandevaluatediversesourcesofknowledge,argumentsandapproachespertinenttoexploringhuman-environmentproblems.Explainsocietalrelevanceofgeographicalknowledgeandapplyittorealworldhuman-environmentissues.
- Appreciateandreflectcriticallyontheimportanceofholisticandinterpretativehuman-environmentperspectives.
- Anunderstandingandacknowledgmentofthethreatsthatendangertheearth'snaturalsystems.Thishelpsinfurtherrealizationofthesignificanceofanthropogeniccausesofmanyofthedisastersandthreatsthatputslifeonthisplanetontheedge.
- Developmentofknowledge,skillsandholisticunderstandingofthedisciplineamongstudents.Encouragementofscientificmodeofthinkingandscientificmethodofenquiryinstudents.ThisgoalisachievedthroughtheregularfieldexcursionsconductedbytheDepartmenttovariouspartsof Indiaextensivelyandthewritingofareport/thesisonit.
- Studentsbecomeequippedwiththeabilitytorespondtobothnaturalandman-madedisastersandacquiremanagementskills.Thisisattainedthroughthecurriculumbystudyingandanalyzinghazards,disasters,theirimpactandmanagement.
- Abilitytoundertakeresearchininterdisciplinarystudiesandproblemsorissuesbeyondtherealmofwhatstrictlycomesunderthepurviewofgeography.Thisispossiblebecauseofthevariednatureofthecurriculumthatencompassesthestudyandanalysesofconceptsofsub-disciplinesandallieddisciplinesofGeology,Seismology,Pedology,Hydrology,EnvironmentalStudies,DisasterManagement,ResourceManagementandConservation,RegionalPlanningandDevelopmentStudiesetc.

	Semester		**I**		
Course Title	**Geotectonicsand Geomorphology**				
Course Code	**GEOPCOR01T**	**Credit**	**04**		
Course Outcome	➢ UnderstandthetheoriesandfundamentalconceptsofGeotectonicandGeomorphology .Understandearth'stectonicandstructuralevolution.Gainknowledgeaboutearth'sinterior.Developanideaaboutconceptofplatetectonics,andresultantlandforms. ➢ Acquireknowledgeabouttypesoffoldsandfaultsandearthquakes,volcanoesandassociatedlandforms. ➢ Understandingcrustalmobilityandtectonics;withspecialemphasisontheirroleinland formdevelopment. ➢ Overviewandcriticalappraisaloflandformdevelopmentmodels. ➢ Ablitytorecordtemperature,pressure,humidityandrainfall ➢ Developtheskillsofidentificationoffeaturesandcorrelationbetweenthem. ➢ Dofieldsurveysusingappropriatetechniques. ➢ Identificationofrocksandminerals.				
Scheme of Instruction					
Total Duration	**6**	**Class/Week**	**04**	**Hours/week**	**15**

Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.

Scheme of Examination					
Maximum Score	**50**	**Internal**	**10**	**End Semester**	**40**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
Unit I: Geotectonics	1.Earth's tectonic and structural evolution with reference to geological time scale	**04**
	2. Earth's interior with special reference to seismology. Isostasy: Models of Airy and Pratt	**04**
	3.Plate Tectonics as a unified theory of global tectonics: Processes and landforms at plate marginsand hotspots	**04**
	4.Folds and Faults—origin and types	**05**
	5.Degradational processes: Weathering, mass wasting and resultant landforms	**04**
	6.Development of river network and landforms on uniclinal and folded structures	**06**

Unit II: Geomorphology	7. Development of landforms on granites, basalts and limestones.	**08**
	8.Coastal processes and landforms	**05**
	9.Glacial and glacio-fluvial processes and landforms Aeolian and fluvio-aeolian processes and landforms	**06** **08**
	10.Models on landscape evolution: Views of Davis, Penck and Hack	**06**

		Semester	**I**		
Course Title	**Cartographic Techniques**				
Course Code	**GEOPCOR02T**	**Credit**	**04**		
Course Outcome	➢ Understandandpreparedifferentkindsofmaps. ➢ Recognizebasicthemesofmapmaking. ➢ Developmentofobservationskills.				
Scheme of Instruction					
Total Duration	**60**	**Class/Week**	**04**	**Hours/week**	**04**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				
Scheme of Examination					
Maximum Score	**50**	**Internal**	**10**	**End Semester**	**40**

Course Mapping

Units	Course Content	Lecture Hour

		(Cumulative)
	Maps: Classification and types. Components of a map	**04**
	Concept and application of scales: Plain, comparative, diagonal and vernier	**06**
	Survey of India topographical maps: Reference scheme of old and open series. Information onthe margin of maps	**11**
	Coordinate systems: Polar and rectangular	**10**
	Concept of generating globe and UTM projection	**08**
	Grids: angular and linear systems of measurement	**09**
	Map projections: Classification, properties and uses	**12**

Semester	**I**		
Course Title	**Geotectonics and Geomorphology**		
Course Code	**GEOACOR 01P**	**Credit**	**02**
Course Outc	➢ UnderstandthetheoriesandfundamentalconceptsofGeotectonicandGeomorphology .Understandearth'stectonicandstructuralevolution.Gainknowledgeaboutearth'sinterior.Developanideaaboutconceptofplatetectonics,andresultantlandforms. ➢ Acquireknowledgeabouttypesoffoldsandfaultsandearthquakes,volcanoesandassociatedlandforms. ➢ Understandingcrustalmobilityandtectonics;withspecialemphasisontheirroleinlan		

ome	dformdevelopment. ➢ Overviewandcriticalappraisaloflandformdevelopmentmodels. ➢ Abilitytorecordtemperature,pressure,humidityandrainfall ➢ Developtheskillsofidentificationoffeaturesandcorrelationbetweenthem. ➢ Dofieldsurveysusingappropriatetechniques. ➢ Identificationofrocksandminerals.

Scheme of Instruction

Total Duration	**60**	**Class/Week**	**04**	**Hours/week**	**04**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				

Scheme of Examination

Maximum Score	**25**	**Internal**	**15**	**End Semester**	**10**

Course Mapping

Units	**Course Content**	**Lecture Hour (Cumulative)**

Unit-I Megascopic identification	(a) *mineral samples*: Bauxite, calcite, chalcopyrite, feldspar, galena,gypsum, hematite, magnetite, mica, quartz, talc, tourmaline; and	**18**
	(b) *rock samples*: Granite, basalt, dolerite, laterite, limestone, shale, sandstone, conglomerate, slate, phyllite, schist, gneiss, quartzite, marble	**12**
Unit -II Geological map	Interpretation of geological maps with unconformity and intrusions on uniclinal and folded structures	**30**

	Semester	**I**	
Course Title	**Cartographic Techniques**		
Course Code	**GEOACOR02P**	**Credit**	**02**
Course Outcome	➢ Understandandpreparedifferentkindsofmaps. ➢ Recognizebasicthemesofmapmaking.		

	➢ Developmentofobservationskills.				
Scheme of Instruction					
Total Duration	**60**	**Class/Week**	**06**	**Hours/week**	**06**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				
Scheme of Examination					
Maximum Score	**25**	**Internal**	**15**	**End Semester**	**10**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
	1. Graphical construction of scales: Plain, comparative, diagonal and vernier	**09**
	2. Construction of projections: Polar Zenithal Stereographic, Simple Conic with two standard parallels, Bonne's, Cylindrical Equal Area, and Mercator's	**18**
	3. Delineation of drainage basin from Survey of India topographical map. Construction and interpretation of relief profiles (superimposed, projected and composite), relative relief map, slope map (Wentworth), and stream ordering (Strahler) on a drainage basin.	**18**
	4. Correlation between physical and cultural features from Survey of India topographical maps using transect chart.	**15**

<table>
<tr><td colspan="3">Semester</td><td colspan="4">II</td></tr>
<tr><td>Course Title</td><td colspan="6">Human Geography</td></tr>
<tr><td>Course Code</td><td>GEOACOR03T</td><td>Credit</td><td colspan="4">06</td></tr>
<tr><td>Course Outcome</td><td colspan="6">• GainknowledgeaboutmajorthemesofhumanGeography.
• Acquireknowledgeonthehistoryandevolutionofhumans.
• UnderstandtheapproachesandprocessesofHumanGeographyaswellasthediversepatternsofhabitatandadaptations.
Developanideaaboutspace and society</td></tr>
<tr><td colspan="7">Scheme of Instruction</td></tr>
<tr><td>Total Duration</td><td>90</td><td>Class/Week</td><td>06</td><td>Hours/week</td><td colspan="2">06</td></tr>
<tr><td>Instruction Mode</td><td colspan="6">ClassroomLectures,PPTs, documentaries,discussions and tutorials.</td></tr>
<tr><td colspan="7">Scheme of Examination</td></tr>
<tr><td>Maximum Score</td><td>75</td><td>Internal</td><td>25</td><td>End Semester</td><td colspan="2">50</td></tr>
<tr><td colspan="7">Course Mapping</td></tr>
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Units	Course Content	Lecture Hour (Cumulative)
Unit I: Nature and Principles	1. Nature, scope and recent trends. Elements of Human Geography	08
	2.Approaches to Human Geography; Resource, Locational, Landscape, Environmental	08
	3. Concept and classification of race; ethnicity	06
	4. Space, society and cultural regions (language and religion)	08
Unit :II: Society, Demography and Ekistics	5. Evolution of human societies: Hunting and food gathering, pastoral nomadism, subsistence farming and industrial society	07
	6.Human adaptation to environment: Eskimo, Masai and Maori	09
	7. Population growth and distribution, composition; demographic transition	15
	8. Population–Resource regions (Ackerman)	10
	9. Types and patterns of rural settlements	09
	10. Morphology of urban settlements	10

Semester	II		
Course Title	Cartograms and Thematic Mapping		
Course Code	GEOACOR04T	Credit	04

Course Outcome	➢ Comprehendtheconceptofscalesandrepresentationofdatathroughcartograms. ➢ Interpretgeologicalandweathermaps. ➢ Learntheusagesofsurveyinstruments. ➢ BringsdirectinteractionofdifferenttypesofsurveyinginstrumentslikeDumpylevelandTheodolitewithenvironment. ➢ Developanideaaboutdifferenttypesofthematicmappingtechniques.

Scheme of Instruction					
Total Duration	60	**Class/Week**	04	**Hours/week**	04
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				

Scheme of Examination					
Maximum Score	50	**Internal**	10	**End Semester**	40

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
	1.Concepts of rounding, scientific notation, logarithm and anti-logarithm, natural and log Scales	**06**
	2. Diagrammatic representation of data: Line, Bar, Isopleths	**14**
	3. Representation of area data: Dots and spheres, proportional circles	**13**

	and Choropleth	
	4. Preparation and interpretation of land use land cover maps	**08**
	5. Preparation and interpretation of socio-economic maps	**07**
	6. Bearing: Magnetic and true, whole-circle and reduced	**06**
	7.Basic concepts of surveying and survey equipment: Prismatic Compass, Dumpy Level,Theodolite	**06**

Semester		**II**			
Course Title	**Cartograms and Thematic Mapping (Lab)**				
Course Code	**GEOACOR04P**	**Credit**	**02**		
Course Outcome	➢ Comprehendtheconceptofscalesandrepresentationofdatathroughcartograms. ➢ Interpretgeologicalandweathermaps. ➢ Learntheusagesofsurveyinstruments. ➢ BringsdirectinteractionofdifferenttypesofsurveyinginstrumentslikeDumpylevel andTheodolitewithenvironment. ➢ Developanideaaboutdifferenttypesofthematicmappingtechniques.				
Scheme of Instruction					
Total Duration	**60**	**Class/Week**	**06**	**Hours/week**	**06**
Instructi	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				

on Mode					
Scheme of Examination					
Maximum Score	**25**	**Internal**	**15**	**End Semester**	**10**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
Unit: I Thematic maps	Choropleth showing density of population	**12**
	Dots and Spheres diagram showing distribution of rural and urban population.	**12**
	Proportional pie-diagrams representing economic data and land use data	**12**
Unit: II Traverse survey using	prismatic compass Profile survey using dumpy Level	**24**

Semester	III

Course Title	**Climatology**				
Course Code	**GEOACOR05T**	**Credit**	**04**		
Course Outcome	➢ Understandtheelementsofweatherandclimate,differentatmosphericphenomenaandclimatechange. ➢ Learntoassociateclimatewithotherenvironmental ➢ Andhumanissues.Approachestoclimateclassification. ➢ ToanalyzethedynamicsoftheEarth'satmosphereandglobalclimate.Assessingtheroleofmaninglobalclimatechange. ➢ Preparevariousclimaticmapsandchartsandinterpretthem. ➢ Learntouseofvariousmeteorologicalinstruments. ➢ Learntheinteractionbetweentheatmosphereandtheearth'ssurface.Understandtheimportanceoftheatmosphericpressureandwinds. ➢ Understandhowatmosphericmoistureworks.				
Scheme of Instruction					
Total Duration	**60**	**Class/Week**	**04**	**Hours/week**	**04**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				
Scheme of Examination					
Maximum Score	**50**	**Internal**	**10**	**End Semester**	**40**

Course Mapping		
Units	**Course Content**	**Lecture Hour (Cumulative)**
Unit I: Elements of the Atmosphere	1. Nature, composition and layering of the atmosphere	**03**
	2. Insolation: controlling factors. Heat budget of the atmosphere	**05**
	3. Temperature: horizontal and vertical distribution. Inversion of temperature: types, causes and Consequences	**06**
	4. Greenhouse effect and importance of ozone layer	**04**
Unit II: Atmospheric Phenomena and Climatic Classification	5. Condensation: Process and forms. Mechanism of precipitation: Bergeron-Findeisen theory, Collision and coalescence. Forms of precipitation	**06**
	6. Air mass: Typology, origin, characteristics and modification	**04**
	7. Fronts: warm and cold; frontogenesis and frontolysis	**04**
	8. Weather: stability and instability; barotropic and baroclinic conditions	**05**
	9. Circulation in the atmosphere: Planetary winds, jet stream, index cycle	**06**
	10. Tropical and mid-latitude cyclones	**04**
	11. Monsoon circulation and mechanism with reference to India	**06**
	12. Climatic classification after Köppen, Thornthwaite (1955) and Oliver	**07**

Semester			**III**		
Course Title	**Climatology**				
Course Code	**GEOACOR 05P**		**Credit**	**02**	
Course Outcome	➢ Understandtheelementsofweatherandclimate,differentatmosphericphenomenaandclimatechange. ➢ Learntoassociateclimatewithotherenvironmental ➢ andhumanissues.Approachestoclimateclassification. ➢ ToanalyzethedynamicsoftheEarth'satmosphereandglobalclimate.Assessingtheroleofmaninglobalclimatechange. ➢ Preparevariousclimaticmapsandchartsandinterpretthem. ➢ Learntouseofvariousmeteorologicalinstruments. ➢ Learntheinteractionbetweentheatmosphereandtheearth'ssurface.Understandtheimportanceoftheatmosphericpressureandwinds. ➢ Understandhowatmosphericmoistureworks.				
Scheme of Instruction					
Total Duration	60	**Class/Week**	**06**	**Hours/week**	**06**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				
Scheme of Examination					
Maximum	**25**	**Internal**	**15**	**End Semester**	**10**

Score					

Course Mapping		
Units	**Course Content**	**Lecture Hour (Cumulative)**
	1. Interpretation of daily weather map of India (any two): Pre-Monsoon, Monsoon and Post- Monsoon	**36**
	2. Construction and interpretation ofhythergraph andcliograph (G. Taylor)	**09**
	3. Construction and interpretation of wind rose	**06**
	4. A Project File, comprising of one exercise from each of the following is to be prepared and Submitted	**09**

Semester	**III**		
Course Title	**Geography of India**		
Course Code	**GEOACOR06T**	**Credit**	**06**
Course Outcome	Afterthecompletion ofcourse, the students will have abilityto: ➢ Understand the physical profileof thecountry ➢ Studythe resource endowmentanditsspatialdistributionandutilizationforsustainable development ➢ Synthesize and develop theideaofregional dimensions.		

Scheme of Instruction					
Total Duration	**90**	**Class/Week**	**06**	**Hours/week**	**06**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				
Scheme of Examination					
Maximum Score	**75**	**Internal**	**25**	**End Semester**	**50**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
Unit I: Geography of India	1. Tectonic and stratigraphic provinces, physiographic divisions	05
	2. Climate, soil and vegetation: Characteristics and classification	10
	3. Population: Distribution, growth, structure and policy	09
	4. Tribes of India with special reference to Gaddi, Toda, Santal and Jarwa	05
	5. Agricultural regions. Green revolution and its consequences	10
	6. Mineral and power resources distribution and utilisation of iron ore, coal, petroleum and naturalGas	09
	7. Industrial development: Automobile and information technology	04
	8. Regionalisation of India: Physiographic (R.L. Singh) and economic (P. Sengupta)	08
Unit II: Geography of	9. Physical perspectives: Physiographic divisions, forest and water resources	08

West Bengal	10. Resources: Agriculture, mining, and industry	07
	11. Population: Growth,distribution and human development	07
	12. Regional Issues: Darjeeling Hills and Sundarban	08

Semester			**III**		
Course Title	**Statistical Methods in Geography**				
Course Code	**GEOACOR07T**	**Credit**	**04**		
Course Outcome	➢ Learnthesignificanceofstatisticsingeography.Understandtheimportanceofuseofdataingeography ➢ RecognizetheimportanceandapplicationofStatistics ➢ inGeography ➢ Interpretstatisticaldataforaholisticunderstandingofgeographicalphenomena. ➢ Knowaboutdifferenttypesofsampling. ➢ Developanideaabouttheoreticaldistribution. ➢ Learntousetabulationofdata. ➢ Gainknowledgeaboutassociationandcorrelation.				
Scheme of Instruction					
Total Duration	**60**	**Class/Week**	**04**	**Hours/week**	**04**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				

Scheme of Examination					
Maximum Score	**50**	**Internal**	**10**	**End Semester**	**40**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
Unit I: Frequency Distribution and Sampling	1. Importance and significance of statistics in Geography	**04**
	2. Discrete and continuous data, population and samples, scales of measurement (nominal, ordinal, interval and ratio),	**05**
	3. Sources of geographical data for statistical analysis	**06**
	4. Collection of data and formation of statistical tables	**02**
	5. Sampling: Need, types, and significance and methods of random sampling	**07**
	6. Theoretical distribution: frequency, cumulative frequency, normal and probability	**06**
Unit II: Numerical Data Analysis	7. Central tendency: Mean, median, mode, partition values	**05**
	8. Measures of dispersion range: mean deviation, standard deviation, coefficient of variation	**10**
	9. Association and correlation: Rank correlation, product moment correlation	**05**
	10. Regression: Linear and non-linear	**04**
	11. Time series analysis: Moving average	**06**

Semester			**III**		
Course Title	**Statistical Methods in Geography (Lab)**				
Course Code	**GEOACOR07P**	**Credit**	**02**		
Course Outcome	➢ Theconceptofquantitativeinformationingeneralandgeographicaldatain particular.Theimportanceofdataanalytics.Thewaysdataiscollectedordatais taken from different sources. Thesamplingmethods' application for data collection purposes. ➢ Thewaystohandlethecollecteddatathroughclassification,tabulationand stigmatization. Thedatapresentation using graphical and diagrammaticways. ➢ To calculate different averages on data and to identifythe variations indata. ➢ To compute relations andimpacts amongthe dataseries. ➢ Theconcept of probabilityparticularlynormalcurve.				
Scheme of Instruction					
Total Duration	**60**	**Class/Week**	**06**	**Hours/week**	**06**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				
Scheme of Examination					

Maximum Score	25	Internal	15	End Semester	10

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
	1.Construction of data matrix with each row representing an areal unit (districts / blocks / *mouzas*/ towns) and corresponding columns of relevant attributes	**12**
	2.Based on the above, a frequency table, measures of central tendency and dispersion would be computed and interpreted using histogram and frequency curve	**18**
	3. From the data matrix a sample set (20%) would be drawn using, random, systematic andstratified methods of sampling and locate the samples on a map with a short note on methods used	**15**
	4. Based on the sample set and using two relevant attributes, a scatter diagram and linearregression line would be plotted and residual from regression would be mapped with a shortinterpretation.	**15**

Semester	III		
Course Title	**RemoteSensing**		
Course Code	**GEOSSEC01M**	**Credit**	**02**
Course	This is a practical, hands-on course; whenyou have completed it,you will be able		

Outcome	to: ➢ Explain principles of remotesensing,different satellitesystems and sensors; ➢ Performimagepre-processing,enhancementandclassificationandinterpretationof satelliteimages; ➢ ApplyImagepreprocessingfor land uselandcover and urban studies;

Scheme of Instruction					
Total Duration	**30**	**Class/Week**	**02**	**Hours/week**	**02**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				

Scheme of Examination					
Maximum Score	**25**	**Internal**	**15**	**End Semester**	**10**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
	1. PrinciplesofRemoteSensing(RS):ClassificationofRSsatellitesandsensors	**12**
	2.	

	SensorresolutionsandtheirapplicationswithreferencetoIRSandLandsatmissions,imagereferencingschemesanddataacquisition.	**18**
	3. PreparationofFalseColour CompositesfromIRSLISS-3andLandsatTM andOLIdata. Principlesofimagerectificationandenhancement.	**15**
	4. Principlesofimageinterpretation andfeatureextraction.Preparationof inventoriesof landuselandcoverfeaturesfromsatelliteimages.	**15**

Semester	**IV**		
Course Title	**RegionalPlanningandDevelopment**		
Course Code	**GEOACOR08T**	**Credit**	**06**
Course Outcome	➢ Understandandidentifyregionsasanintegralpartof ➢ Geographicalstudy. ➢ Appreciatethevariedaspectsofdevelopmentandregionaldisparity,inorder toformulatemeasuresofbalanceddevelopment. ➢ Analyzingtheconceptofregionsandregionalization. ➢ StudyingtypicalphysiographicplanningaridandbioticregionsofIndia.Understandingthedetailedgeographyof India. ➢ Gainknowledgeaboutdefinitionofregion,evolutionandtypesofregionalplanning.Developanideaaboutchoiceofaregionforplanning. ➢ Buildanideaabouttheoriesandmodelsforregionalplanning.Knowaboutmeasuringdevelopmentindicators. ➢ Theycanknowaboutdelineationofformalregionsbyweightedindexmethodandalsodelineationoffunctionalregionsbybreakingpointanalysis. ➢ GainknowledgeaboutmeasuringinequalitybyLocationQuotient,andalsomeasu		

	ringregionaldisparitybySopherIndex				
Scheme of Instruction					
Total Duration	**90**	**Class/Week**	**06**	**Hours/week**	**06**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				
Scheme of Examination					
Maximum Score	**75**	**Internal**	**25**	**End Semester**	**50**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
Unit I: RegionalPlanning	1.Conceptofregions:Typesof regions andtheir delineation	**08**
	2.RegionalPlanning: Types,principles, objectives, toolsandtechniques	**08**
	3. Needforregional planningin India, multi- levelplanningin India	**06**
	4. Metropolitan conceptandurbanagglomeration	**08**
	5. Concepts ofgrowthanddevelopment, growthversusdevelopment	**07**
	6. Indicatorsof development:Economic, socialandenvironmental	**09**
	7. Humandevelopment:Concept andmeasurement	**05**

Unit -II: Regional Development	8. Theoriesandmodels for regional development:Cumulativecausation(Myrdal)	**06**
	9. Theoriesandmodels for regional development:Stages of development(Rostow), growth pole model (Perroux).	**09**
	10. Conceptandcauses ofunderdevelopment	**10**
	11. Regionaldevelopment inIndia:Disparityanddiversity	**08**
	12. Needandmeasures for balanced development inIndia	**06**

Semester	**IV**		
Course Title	**Economic Geography**		
Course Code	**GEOACOR09T**	**Credit**	**06**
Course Outcome	➢ Understandtheconceptofeconomicactivity,factorsaffectinglocationofeconomicactivity.Gainknowledgeaboutdifferenttypesof Economicactivities ➢ AssessthesignificanceofEconomicGeography,theconceptofeconomicmanandtheoriesofchoice. ➢ Analyzethefactorsoflocationofagricultureandindustries. ➢ Understandtheevolutionofvariedtypesofeconomicactivities. ➢ Mapandinterpretdataonproduction,economicindices,transportnetworkandflows.		
Scheme of Instruction			

Total Duration	**90**	**Class/Week**	**06**	**Hours/week**	**06**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				
Scheme of Examination					
Maximum Score	**75**	**Internal**	**25**	**End Semester**	**50**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
Unit I: Concepts	1. Meaningandapproaches toEconomic Geography.	**08**
	2.Concepts in EconomicGeography: Goodsandservices, production, exchange andconsumption	**08**
	3.Conceptofeconomicman,theoriesof choices	**06**
	4.Economic distance andtransport costs	**08**
	5.Conceptandclassificationof economic activities	**07**
	6. Factorsaffectinglocationof economic activitywithspecial reference toagriculture (Von Thünen), andindustry(Weber).	**09**

Unit II: Economic Activities	7.Primaryactivities: Agriculture, forestry, fishingandmining 8.Secondaryactivities:Manufacturing(cottontextile, ironandsteel),conceptof manufacturing regions, specialeconomic zonesandtechnology parks	**05** **10**
	9.Tertiary activities:Transport, tradeandservices	**09**
	10.Agriculturalsystems:Casestudiesof tea plantationinIndia andmixed farminginEurope	**09**
	11.Transnationalsea-routes, railwaysandhighwayswithreference toIndia	**06**
	12.Internationaltrade andeconomicblocs:WTO, GATTandBRICS: Evolution,structure and functions	**08**

	Semester	**IV**	
Course Title	**EnvironmentalGeography**		
Course Code	**GEOACOR 10T**	**Credit**	**04**
Course Outcome	➢ Introductiontothebasicconceptsof environment and NRM ➢ Detailed discussion of conceptual framework ofdifferentecosystems ➢ Deepunderstandingofenvironmental issues of different regions ➢ Detailed analysisof different issues related to environmental conservation ➢ Understandingthedifferentpolicies relatedtoconservationofenvironment at local as well asglobal level		
Scheme of Instruction			

Total Duration	**60**	**Class/Week**	**04**	**Hours/week**	**04**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				
Scheme of Examination					
Maximum Score	**50**	**Internal**	**10**	**End Semester**	**40**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
Unit I: Concepts	1.Geographers' approach to environmental studies	**05**
	2.Conceptofholistic environmentandsystems approach	**06**
	3.Ecosystem: Concept, structure andfunctions	**10**
	4.Space–time hierarchyofEnvironmentalproblems:Local, regionalandglobal	**04**
Unit II:Environmental problemsandpolicies	5.Environmental pollution anddegradation:Land,waterandair	**05**
	6.Urbanenvironmental issues withspecial reference towastemanagement	**06**
	7.Environmental policies–National EnvironmentalPolicy, 2006,Earth Summits(Stockholm, Rio, Johannesburg)	**12**
	8. Global initiativesforenvironmentalmanagement (specialreferencetoMontrealProtocol,Kyoto Protocol,ParisClimateSummit)	**15**

Semester	**IV**

Course Title	**EnvironmentalGeography**		
Course Code	**GEOACOR 10P**	**Credit**	**02**
Course Outcome	➢ Techniques to prepare questionnaires for perception survey on environmental problems ➢ Techniques to prepare check – list for environmental impact assessment. ➢ Draw diagrams and interpretation from air quality data.		

Scheme of Instruction					
Total Duration	**60**	**Class/Week**	**04**	**Hours/week**	**04**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				

Scheme of Examination					
Maximum Score	**25**	**Internal**	**15**	**End Semester**	**10**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
	1. Preparationof questionnaire forperceptionsurveyonenvironmental problems	**18**
	2.Preparationof check-listfor Environmental Impact Assessmentof an urban/industrialproject	**24**
	3.Interpretationof air qualityusingCPCB/WBPCB data	**18**

Semester	**III**

Course Title	**AdvancedSpatialStatisticalTechniques**		
Course Code	**GEOSSEC02M**	**Credit**	**02**
Course Outcome	Afterthecompletion ofcourse, the students will have abilityto: ➢ Understand the basics ofdata collectionand, processingfor themeaningfuloutcomes ➢ Understand theselectionof proper samplingtechniques for thecollection ofdata ➢ Putintopracticetheresultsobtainedforspatialanalysisofresultsandtoapplyvarious statistical softwares for thestudy		

Scheme of Instruction					
Total Duration	**30**	**Class/Week**	**02**	**Hours/week**	**02**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				

Scheme of Examination					
Maximum Score	**25**	**Internal**	**15**	**End Semester**	**10**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
	1. Probability theory, probabilitydensity functionswith respect toNormal,BinomialandPoisson distributions andtheir geographicalapplications.	**12**
	2. Sampling: Samplingplans for spatialandnon-spatialdata, samplingdistributions.Sampling estimatesforlarge	**18**

	andsmallsamples tests involvingmeansandproportions.	
	3. CorrelationandRegressionAnalysis:Rankordercorrelationandproduct momentcorrelation; linear regression, residualsfromregression,andsimple curvilinear regression. Introductionto multi-variateanalysis.	**15**
	4. TimeSeries Analysis: TimeSeriesprocesses; Smoothingtime series;Time seriescomponents.	**15**

Semester		**V**			
Course Title	**FieldworkandResearchMethodology**				
Course Code	**GEOACOR 11T**	**Credit**	**04**		
Course Outcome	➢ Haveexpertiseinidentificationofareaofstudy,methodology,quantitativeandquantitativeanalysis,andconclusionstobedrawnaboutthearea–fundamentaltogeographicalresearch. ➢ Handlelogisticsandotheremergenciesonfield. ➢ Developskillsinphotography,mappingandvideorecording.				
Scheme of Instruction					
Total Duration	**60**	**Class/Week**	**04**	**Hours/week**	**04**
Instruction	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				

Mode					
Scheme of Examination					
Maximum Score	**50**	**Internal**	**10**	**End Semester**	**40**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
Unit I: Research Methodology	1. Research inGeography: Meaning, types andsignificance	**06**
	2. Literature reviewandformulationof research design	**06**
	3. Definingresearch problem,objectivesandhypothesis.	**08**
	4. Research materialsandmethods	**04**
	5. Techniquesof writingscientific reports:Preparingnotes,references,bibliography, abstractand keyword	**08**
Unit II: Fieldwork	1. Fieldwork inGeographicalstudies:Role andsignificance. Selectionofstudyareaandobjectives.Pre-fieldacademicpreparations. Ethicsof fieldwork	**08**
	2. Fieldtechniquesandtools:Observation(participant, non-participant), questionnaires (open, closed,structured, non-structured).Interview	**06**
	3. Fieldtechniquesandtools:Landscape survey usingtransectsandquadrants, constructinga sketch,photoandvideorecording.	**08**
	4. Positioningand collectionof samples.Preparationofinventoryfromfielddata.	**06**

Semester		**V**			
Course Title	**FieldworkandResearchMethodology(Lab)**				
Course Code	**GEOACOR11P**	**Credit**	**02**		
Course Outcome	➢ Haveexpertiseinidentificationofareaofstudy,methodology,quantitativeandquantitativeanalysis,andconclusionstobedrawnaboutthearea–fundamentaltogeographicalresearch. ➢ Handlelogisticsandotheremergenciesonfield. ➢ Developskillsinphotography,mappingandvideorecording.				
Scheme of Instruction					
Total Duration	**60**	**Class/Week**	**06**	**Hours/week**	**06**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions, fieldworks and tutorials.				
Scheme of Examination					
Maximum	**25**	**Internal**	**15**	**End Semester**	**10**

Score					

Course Mapping		
Units	**Course Content**	**Lecture Hour (Cumulative)**
	A. Literature Review	**10**
	B. Field Report	**50**

Semester			**V**		
Course Title	**RemoteSensingandGIS**				
Course Code	**GEOACOR12T**	**Credit**	**04**		
Course Outcome	➢ Haveknowledgeoftheprinciplesofremotesensing,sensorresolutionsandimagereferencingschemes. ➢ Interpretsatelliteimageryandunderstandthepreparationoffalsecolorcompositesfromthem. ➢ TrainingintheuseGeographicInformationSystem(GIS)softwareforcontemporarymappingskills. ➢ AnalyzingandinterpretingremotelysensedsatelliteimagesandaerialphotographsinordertounderstandtopographicalandculturalvariationsontheEarth'ssurface. ➢ ConductingfieldexcursionsandpreparationoffieldreportonresearchonproblemindifferentareasofIndia ➢ ApplyGIStothepreparationofthematicmaps. ➢ UseGNSS.				
Scheme of Instruction					
Total	**60**	**Class/Week**	**04**	**Hours/week**	**04**

Duration					
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				
Scheme of Examination					
Maximum Score	**50**	**Internal**	**10**	**End Semester**	**40**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
Unit I: Remote Sensing	1.Principlesof Remote Sensing(RS):TypesofRS satellitesandsensors	**06**
	2.Sensor resolutions andtheir applicationswith referencetoIRS andLandsatmissions	**05**
	3. Preparationof False ColourCompositesfromIRSLISS-3 andLandsat TM and OLIdata.	**10**
	4. Principlesof imagecorrection andinterpretation. Preparationof inventoriesofland useland cover (LULC) featuresfromsatelliteimages**.**	**12**
Unit II: GeographicalInformationSystems andGlobalNavigationSatellite System	5.ConceptofGISanditsapplicability;GISdatastructures: types:spatialandnon-spatial,raster andvector	**08**
	6.Principlesof preparingattribute tablesanddatamanipulationandoverlayanalysis	**08**
	7.Principlesof GNSSpositioningandwaypoint collection	**05**
	8. Transferringwaypoints toGIS. Area andlengthcalculations fromGNSSdata.	**06**

Semester		**V**			
Course Title	**RemoteSensingandGIS**				
Course Code	**GEOACOR 12P**	**Credit**	**02**		
Course Outcome	➢ Haveknowledgeoftheprinciplesofremotesensing,sensorresolutionsandimagereferencingschemes. ➢ Interpretsatelliteimageryandunderstandthepreparationoffalsecolorcomposites fromthem. ➢ TrainingintheuseGeographicInformationSystem(GIS)softwareforcontemporarymappingskills. ➢ AnalyzingandinterpretingremotelysensedsatelliteimagesandaerialphotographsinordertounderstandtopographicalandculturalvariationsontheEarth'ssurface. ➢ ConductingfieldexcursionsandpreparationoffieldreportonresearchonproblemindifferentareasofIndia ➢ ApplyGIStothepreparationofthematicmaps. ➢ UseGNSS.				
Scheme of Instruction					
Total Duration	**60**	**Class/Week**	**04**	**Hours/week**	**04**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				
Scheme of Examination					

Maximum Score	25	Internal	15	End Semester	10

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
	1. Georeferencing ofmapsandimages usingOpen Source software	20
	2. Preparationof FCCandidentificationof features usingstandardFCC andother band combinations	15
	3. Digitizationof features.Data attachment,overlayandpreparationofannotatedthematicmaps (choropleth, pie chartandbar graphs).	15
	4. Note: Allexercisestobe done usingQGIS(2.10 andabove)	10

Semester	V		
Course Title	SoilandBiogeography		
Course Code	GEOADSE01T	Credit	06
Course Outcome	➢ Haveknowledgeaboutthecharacterandprofileofdifferentsoiltypes. ➢ Understandtheimpactofmanasanactiveagentofsoiltransformation,erosionand degradation. ➢ Recognizelandcapabilityandclassifyit. ➢ ExplainingthePedologicalandEdaphologicalApproachestoSoilStudies-Processesofsoilformation,typesofsoil,andprinciplesofsoilandlandclassificati		

	on;andmanagement. ➢ Understandthevariedecosystemsandclassifythem. ➢ Recognizethesignificanceofbiogeochemicalcyclesandbiodiversity. ➢ Comprehendthedevastatingimpactofdeforestation. ➢ IdentifysoiltypesandderivetheirpH.

Scheme of Instruction					
Total Duration	**90**	**Class/Week**	**06**	**Hours/week**	**06**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				

Scheme of Examination					
Maximum Score	**75**	**Internal**	**25**	**End Semester**	**50**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
Unit I: SoilGeography	1. Factorsofsoilformation.Manas anactive agentof soiltransformation.	**08**
	2. Soilprofile. Originandprofile characteristicsof Lateritic, Podzol andChernozem soils	**14**
	3. Definitionandsignificanceof soilproperties:Texture,structure andmoisture,	**06**
	4. Definitionandsignificanceof soilproperties: pH,organic matterandNPK	**06**
	5. Soilerosionanddegradation: Factors,	**08**

	processesandmitigationmeasures	
	6. Principlesof soilclassification: Genetic andUSDA.Conceptof landcapability andits classification.	**06**
Unit II: Biogeography	7.Concepts ofbiosphere,ecosystem,biome,ecotone,community, niche,successionandecology	**08**
	8. Concepts oftrophic structure, foodchainandfoodweb. Energy flowinecosystems	**08**
	9.Geographicalextent andcharacteristic featuresof: Tropicalrainforest,Taiga andGrassland biomes	**09**
	10.Bio-geochemicalcycleswithspecial reference tocarbondioxide andnitrogen	**06**
	11. Spatialdistributionof worldfauna.	**05**
	12.Measuresfor conservationof bio-diversityinIndia:ManandBiosphereProgramme	**06**

	Semester	**V**	
Course Title	**SettlementGeography**		
Course Code	**GEOADSE02T**	**Credit**	**06**
Course Outcome	➢ Acquire knowledge aboutRuralsettlements-Definition, nature and characteristics ➢ Analyze the morphologyofruralsettlements ➢ Learntheruralhouse types,census categories ofruralsettlements and idea ofsocialsegregation ➢ Learn thecensus definition and categories ofurban settlements ➢ Analyze the urban morphology models ofBurgess, Hoyt, Harris and Ullman ➢ Differentiate betweencity-region andconurbation ➢ Analyze the functionalclassification ofcities ➢ Develop the skillofmappinglanguage distribution ofIndia		

	➢ Learnto plotproportional squares to illustrate housing distribution ➢ Acquire the skillof identifyingruralsettlement types from topographicalsheet ➢ Understand SocialArea Analysis ofacitybasedon Shevkyand Bell

Scheme of Instruction					
Total Duration	**90**	**Class/Week**	**06**	**Hours/week**	**06**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				

Scheme of Examination					
Maximum Score	**75**	**Internal**	**25**	**End Semester**	**50**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
Unit I RuralSettlement	1. Scope andcontentof Settlement Geography; rural, urbanandperi-urbanareas.	**08**
	2. Rural Settlement:Definition, nature andcharacteristics	**08**
	3. Morphologyof rural settlements: site andsituation, layout-internal andexternal	**10**
	4. Rural housetypeswith reference toIndia, Socialsegregationin ruralareas;Census categoriesof ruralsettlements.	**10**
	5. Problemsandpoliciesrelated to ruralinfrastructure withreferencetoIndia	**08**
	6. UrbanSettlements:Censusdefinition(Temporal)	**06**

Unit II **UrbanSettlement**	andcategories inIndia	
	7. Urban morphology:Classical models: Burgess,HomerHoyt,Harris andUllmanMetropolitan concept.	**12**
	8. City-regionandConurbation,Functionalclassificationof cities:Harris, NelsonandMcKenzie	**12**
	9. Aspectsof urbanplaces:Location,siteandsituation, Size andspacingofcities:the rank size rule, the lawofthe primate city	**08**
	10.Ur banhierarchies:CentralPlaceTheory; AugustLöch's theoryofmarketcentres	**08**

	Semester	**VI**	
Course Title	**EvolutionofGeographicalThought**		
Course Code	**GEOACOR13T**	**Credit**	**06**
Course Outcome	➢ PerceivetheevolutionofthephilosophyofGeography. ➢ AppreciatethecontributionofthethinkersinGeography. ➢ Givepowerpointpresentationsondifferentschoolsofgeographicalthought. ➢ Discussingtheevolutionofgeographicalthoughtfromancienttomoderntimes. ➢ EstablishingrelationshipofGeographywithotherdisciplinesandman-environmentrelationships. ➢ AnalyzingmodernandcontemporaryprinciplesofEmpiricism,Positivism,Structuralism,HumanandBehavioralApproachesinGeography		
Scheme of Instruction			

Total Duration	90	Class/Week	06	Hours/week	06
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				
Scheme of Examination					
Maximum Score	75	Internal	25	End Semester	50

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
Unit I: Natureof Pre Modern Geography	1.DevelopmentofGeography: Contributionsof Greek and Chinesegeographers	08
	2.Impactof 'Dark Age' inGeography andArab contributions	08
	3.Geographyduringthe ageof 'Discovery'and'Exploration' (contributionsofColumbus, Vascoda Gama,Magellan,Thomas Cook)	10
	4. Transitionfromcosmography toscientific Geography (contributionsof BernardVarenius and Immanuel Kant). DualismandDichotomies (Ideographic vs. Nomothetic,Physicalvs. Human, Regionalvs. Systematic,Determinismvs.Possibilism,)	12
Unit II: Foundationsof Modern Geograp	5.Evolutionof GeographicalthoughtsinGermany, France,BritainandUnited Statesof America	08
	6.ContributionsofHumboldtandRitter	06
	7.ContributionsofRichthofen,Hettner,Ratzel andVidaldeLaBlaché	12

hy and Recent Trends	8. Trendsof geography in the post-WorldWar-IIperiod:Quantitative Revolution, systems approach.	**12**
	9. Evolutionof Critical Geography: Behavioural, humanistic andradical.	**08**
	10.Changingconceptoftime-space ingeographyinthe 21stCentury	**06**

		Semester	**VI**		
Course Title	**DisasterManagement**				
Course Code	**GEOACOR 14T**	**Credit**	**04**		
Course Outcome	➢ Understandthenatureofhazardsanddisasters. ➢ Assessrisk,perceptionandvulnerabilitywithrespecttohazards. ➢ Preparehazardzonation maps. ➢ Assessingthenature,impactandmanagementofmajornaturalandman-madehazardsaffectingtheIndiansubcontinent.				
Scheme of Instruction					
Total Duration	**60**	**Class/Week**	**03**	**Hours/week**	**03**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				
Scheme of Examination					
Maximum Score	**50**	**Internal**	**10**	**End Semester**	**40**
Course Mapping					

Units	Course Content	Lecture Hour (Cumulative)
Unit I: Concepts	1. Classificationofhazards anddisasters.	**06**
	2. Approachestohazardstudy: Risk perceptionandvulnerabilityassessment. Hazardparadigms.	**08**
	3. Responsestohazards: Preparedness,traumaandaftermath.Resilience andcapacitybuilding.	**06**
	4.Hazards mapping:Data andgeospatialtechniques(for hazardsenlisted inUnit IIandCore 14P)	**10**
Unit II: Hazard-specific Studywith focusonIndia	5.Earthquake:Factors,vulnerability, consequencesandmanagement	**06**
	6.Landslide:Factors,vulnerability, consequencesandmanagement	**06**
	7.Tropical Cyclone: Factors,vulnerability, consequencesandmanagement	**06**
	8.Riverbankerosion:Factors,vulnerability, consequences andmanagement	**06**
	9.Radioactivefallout:Factors, vulnerability, consequencesandmanagement	**06**

Semester	**VI**		
Course Title	**DisasterManagement**		
Course Code	**GEOACOR 14P**	**Credit**	**02**
Course	➢ Understandthenatureofhazardsanddisasters. ➢ Assessrisk,perceptionandvulnerabilitywithrespecttohazards.		

Outcome	➢ Preparehazardzonationmaps. ➢ Assessingthenature,impactandmanagementofmajornaturalandman-madehazardsaffectingtheIndiansubcontinent.				
Scheme of Instruction					
Total Duration	**60**	**Class/Week**	**06**	**Hours/week**	**06**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				
Scheme of Examination					
Maximum Score	**25**	**Internal**	**15**	**End Semester**	**10**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
	AnindividualProjectReportistobepreparedandsubmittedbasedonanyonecasestudyamongthe Followingdisasters ofWestBengal incorporatinga preparednessplan 1. Thunderstorm 2. Landslide 3. Flood 4. Coastal/riverbank erosion 5. Fire 6. Industrialaccident 7. Structuralcollapse	**60**

Semester	**VI**

Course Title	**HydrologyandOceanography**		
Course Code	**GEOADSE 04T**	**Credit**	**06**
Course Outcome	➢ AnalysetheconceptsofHydrologyandOceanography ➢ Emphasizingthesignificanceofgroundwaterqualityanditscirculation ➢ Evaluatetheroleoftheglobalhydrologicalcycle. ➢ Studyingthebehaviorandcharacteristicsoftheglobaloceans. ➢ Realizetheimportanceofwaterconservation. ➢ Identifymarineresourcesandcharacteristicsofoceanwaters. ➢ Interprethydrologicalandrainfalldispersiongraphsanddiagrams.		

Scheme of Instruction					
Total Duration	**90**	**Class/Week**	**06**	**Hours/week**	**06**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				

Scheme of Examination					
Maximum Score	**75**	**Internal**	**25**	**End Semester**	**50**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
	1.Systems approachin hydrology. Global hydrologicalcycle:Itsphysical andbiological role	**08**

Unit-I: Hydrology	2.Runoff: controllingfactors.Infiltrationandevapotranspiration. Runoff cycle	**15**
	3.Drainage basinasa hydrologicalunit.Principlesofwater harvestingandwatershed management	**08**
	4.Groundwater:Occurrenceandstorage.Factors controllingrecharge,dischargeand movement	**10**
Unit-II: Oceanography	1.Majorrelief featuresoftheocean floor: characteristics andoriginaccordingtoplate tectonics	**10**
	2.Physicalandchemicalpropertiesofocean water	**06**
	3.Watermass, T–S diagram	**08**
	4.Oceantemperatureandsalinity:Distributionanddeterminants	**10**
	5.Marine resources: Classificationandsustainable utilization	**07**
	6.Sea level change:Typesandcauses	**08**

	Semester	**VI**	
Course Title	**SocialGeography**		
Course Code	**GEOADSE05T**	**Credit**	**06**
Course Outcome	Afterthecompletion ofcourse, the students will have abilityto: ➢ Understand the nature, scope and relationships of geographyand human wellbeing; ➢ Acquireknowledgeon spatial dimensions of social diversitycomponents;		

	➢ Appreciatethe social welfareprograms related to inclusive and exclusivepolicies in India. ➢ ➢ Understandthescope and contentofculturalgeography ➢ Tracethedevelopmentofculturalgeographyin relation to allied disciplines ➢ Understandtheconceptofculturalhearth and realm, cultural diffusion, diffusion ofreligion ➢ Develop an understandingofculturalsegregationandcultural diversity, technologyanddevelopment ➢ Learnabout the variousraces andracialgroupsoftheworld ➢ Identifythe culturalregionsofIndia

Scheme of Instruction					
Total Duration	**90**	**Class/Week**	**06**	**Hours/week**	**06**
Instruction Mode	ClassroomLectures,PPTs, documentaries,discussions and tutorials.				

Scheme of Examination					
Maximum Score	**75**	**Internal**	**25**	**End Semester**	**50**

Course Mapping

Units	Course Content	Lecture Hour (Cumulative)
Unit I: Society,Identity andCrisis	1.SocialGeography: Concept,Origin, Nature andScope	**04**
	2.ConceptofSpace,Socialdifferentiationand stratification; socialprocesses	**10**
	3.SocialCategories:Caste,Class, Religion, RaceandGender andtheir Spatial distribution	**10**

	4.Basis ofSocial regionformation;Evolutionof social-culturalregionsof India	**08**
	5. PeoplingProcessof India:Technology andOccupational Change;Migration.	**08**
	6.Socialgroups, socialbehavior and contemporarysocial environmental issueswithspecial reference toIndia	**06**
Unit II: **SocialWellbeingandPlanning**	7.ConceptofSocialWell-being, QualityofLife,Gender andSocialWell-being	**08**
	8.Measuresof SocialWell-being: Healthcare,Education,Housing, Gender Disparity	**08**
	9. SocialGeographiesofInclusionandExclusion, Slums,Gated Communities,Communal Conflicts andCrime.	**10**
	10.SocialPlanningduringtheFive YearPlans in India	**06**
	11.SocialPoliciesinIndia:EducationandHealth	**08**
	12.SocialImpact Assessment (SIA): Conceptandimportance	**04**