

P.O.- Farakka Barrage. Dist- Murshidabad. Pin-742212 (W.B)

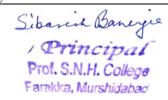
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Under Choice Based Credit System (CBCS)

Undergraduate Programmes of Geography Honours Academic Session 2018-2019 to 2022-2023

	(With Effect from the 2018-19)					
Sl No	Semeste r	Course Code	Course Title	Course Outcomes		
1	r	GEO/H/CC/ T/01 (THEORY)	GEOTECTONI CS AND GEOMORPHO LOGY	 To understand the development of tectonic and structural Earth evolution and the geologic time scale. Analyze the interior structure of Earth using seismological data. Apply the principle of isostasy, focusing on theories given by both Airy and Pratt. Explain plate tectonics, different types of folds, faults, earthquakes, and volcanic activities. Look at geomorphological processes related to weathering, mass wasting, and models of landscape evolution with focus on erosional and depositional landforms. 		
2	Semester-I	GEO/H/CC/ T/02 (THEORY)	Cartographic Techniques and Geological Map Study	 Explain the nature, scope, and classification of maps and cartography. Apply different types of map scale and coordinate systems. Map projection and analysis, with emphasis on the UTM projection. Identify and describe common rocks and minerals including their characteristics. Interpret such geological terms as bedding planes, unconformity, and fault-related terms such as dip, throw and hade. 		
3		GEO/H/CC/ P/02 (Practical)	Cartographic Techniques and Geological Map Study	 Learn to make many types of scale and map projections. Interpret and analyze relief profiles and maps including relative relief and slope maps. Apply ordering techniques on streams and understand the characteristic of drainage basin. 		





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				4. Transect charts can be prepared by the analyst to analyze relationships between physical and cultural features.5. Interpret geological maps and prepare geological sections for a variety of structures such as horizontal, uniclinal, folded, and faulted formations.
4		GEO/H/CC/ T/03 (Theory)	Human Geography	 Describe the scope and major themes of human geography including the topics of race and ethnicity, and cultural regions. Present an analysis in regards to how human societies evolved from hunting and gathering societies to urban industrial ones. Study population dynamics: growth and distribution, and the Demographic Transition Model. It examines the relationships among population, resources, and the environment with respect to development-environment conflict. Identify and describe settlement patterns of rural and urban, social morphology and present trends of urbanization across the world.
5	SEMEST ER-II	GEO/H/CC/ T/04 (Theory)	Cartograms, Survey and Thematic Mapping	 Learn the concepts and uses of cartograms and thematic maps. Interpret and construct isopleth, choropleth maps, and different climatic graphs like climograph, hythergraph, and ergograph. Graph and chart demographic data in a format such as the age-sex pyramid. Apply basic surveying techniques using instruments like Abney's level, prismatic compass, and transit theodolite. Interpret land use and land cover maps to conduct spatial analysis.
6		GEO/H/CC/ P/04 (Practical)	Cartograms, Survey and Thematic Mapping	 Develop the skills of diagrammatic representation of data in the form of star, age-sex pyramid and pie diagrams. Visualize spatial data on maps using proportional circles, dots, spheres, isolines, and choropleth methods. Do the surveying with prismatic compass and dumpy

Sibarik Banegie

/ Principal

Prof. S.N.H. College

Farakka, Murshidabad



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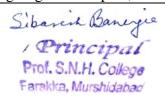
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				level-draw profile. 4. Measure height of objects with accessible bases using a transit theodolite.
7		GEO/H/CC/ T/05 (Theory)	Climatology	 Determine the nature, composition, and layering of the atmosphere, apart from insolation and distribution of temperature. Study the different atmospheric processes of condensation, the mechanism of precipitation, and dynamics of air masses. Observe the pattern of weather and general atmospheric circulation; monsoon systems, cyclones. Apply the climatic classification systems Köppen and Thornthwaite. Evaluate the phenomena of climatic change, such as the greenhouse effect and the relevance of the ozone layer.
8	SEMEST ER-III	GEO/H/CC/ T/06 (Theory)	Statistical Methods in Geography	 Understand how statistics may be used in geography and what types of data and measurement scales are prevalent. Collect, tabulate, and present geographical data in the form of statistical tables and charts. Apply different sampling techniques, such as random, systematic, and stratified sampling. Analyze data by measures of central tendency, dispersion, correlation, and regression. Perform time series analysis and interpret the probability distributions, particularly the normal distribution.
9		GEO/H/CC/ P/06 (Practical)	Statistical Methods in Geography	 Construct data matrices and compute frequency tables, measures of central tendency and dispersion. Create and interpret histograms and frequency curves based upon data sets. Draw scatter diagrams and regression lines; map residuals from regression for analysis. Interpret the statistical output in a manner such that proper inference can be obtained from the geographical data.





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10		GEO/H/CC/ T/07 (Theory)	Geography of India	 Physical geography of India with geological and physiographic divisions. The understanding of regionalization in India through various frameworks-physiographic, socio-cultural, and economic. Study climate, soil, vegetation, and their features with population distribution and growth. Evaluate agricultural regions, resource distribution (minerals and power), and industrial development. Study the physical, demographic, and resource profiles of West Bengal along with regional development details.
11		GEO/H/SE C/P/01/A (Practical)	Computer Basics and Computer Applications	 Understand and apply the use of binary arithmetic and numbering systems. Work with data computations and formatting in spreadsheet, including computation of the statistical analyses: rank, mean, median, and regression. Draw and interpret annotated diagrams, including scatter diagrams and histograms. Employ the Internet to generate and extract information.
12		GEO/H/SE C/P/01/B (Practical)	Remote Sensing	 Understand the principles and concepts of RS: satellite and sensor classification. Apply sensor resolutions and referencing techniques related to image with reference to IRS and Landsat missions. Prepare and interpret false color composites from various satellite images. Employ image rectification and enhancement techniques. Use remote sensing image interpretation to extract features and carry out land use and land cover inventories.
13	SEMEST ER-IV	GEO/H/CC/ T/08 (Theory)	Regional Planning and Development	 Understand what is meant by 'region' and the different types of region: formal, functional, and planning regions. Apply the principles and techniques of regional planning and multi-level planning in India. Theorize the theories and different models of regional development, including growth pole, cumulative





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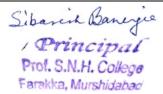
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			causation, and core-periphery model. 4. It is necessary to assess the contribution to regional imbalances and the importance of balanced development in India. 5. Evaluate parameters of human development and measurement tools.
14	GEO/H/CC/ T/09 (Theory)	Economic Geography	 Understand what economic geography entails and how to approach it, including factors that influence economic activities and costs of transport. Location theories of agriculture and industry - explanation. Relate primary economic activities: agriculture, forestry, fishing, mining. Case studies. Assess secondary activities, including manufacturing sectors, in addition to the concept of manufacturing regions. Read about tertiary activities, agricultural systems, and transportation structures such as transnational sea-routes and major transport networks in India.
15	GEO/H/CC/ T/10 (Theory)	Environmental Geography	 Understand the concept and scope of environmental geography, including perception of the environment through different civilizations. Discuss concepts on ecosystems such as structure, functions, and the holistic approach of the environment. Examine environmental pollution and degradation across land, water, and air, noting the related issues in agriculture and urban settings. Evaluate the environmental issues of metropolitan areas, particularly problems concerning waste management. Observe and assess environmental programs and policies internationally, nationally as well as locally.
16	GEO/H/CC/ P/10 (Practical)	Environmental Geography	 Develop and carry out questionnaires that aim to survey perceptions about environmental problems. Do environmental mapping and test the quality of the soil using field kits for pH and NPK.





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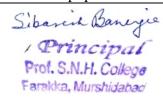
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				3. 4.	Interpretation of air quality data would be drawn from sources under CPCB/WBPCB. Gather and present project files with exercises related to environmental geography. Understand the principles of research in geography: types
17		GEO/H/CC/ T/11 (Theory)	Research Methodology and Field Work	2. 3. 4.	of research, importance of research, and the process of literature review and research design. Produce research problems, objectives and hypotheses, and outline the structure of a research report using APA style. Employ fieldwork techniques and tools of observation, questionnaires, interviews, and landscape surveys. Do the preparations pre-field, maintain ethical considerations, and develop comprehensive field reports with aims, objectives, methodology, and analysis.
18	SEMEST ER-V	GEO/H/CC/ P/11 (Practical)	Research Methodology and Field Work	 2. 3. 	Field surveys are to be carried out, with the collection of primary data integrated with secondary data in order to solve some identified geographical problems. Prepare a detailed handwritten report within the given word limits and format, including maps, diagrams, and photographs. Showcase competence in the presentation of reports, including guidelines on submission and ethical considerations.
19		GEO/H/CC/ T/12 (Theory)	Remote Sensing and GIS	2.	Understand the stages involved in remote sensing, platforms, and sensors used in Remote Sensing - Application of sensor resolutions. Interpret aerial photographs and prepare false color composites for analysis. Know the underlying data structure in GIS, for example, raster and vector data type, learn to manipulate data and carry out overlay analysis. Implement the principles of GNSS for positioning, collecting waypoints, and integrating these data into a GIS.





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20	GEO/H/CC/ P/12 (Practical)	Remote Sensing and GIS	 Georeference maps and digitize spatial features such as point, line, and polygon. Produce and overlay thematic maps by employing bar graphs, pie charts, and choropleth techniques. Prepare FCC and LULC maps using data from IRS LISS-III or LANDSAT (ETM+) data. Image classification and thematic map preparation using Q-GIS software.
21	GEO/H/DS E/T/01/A (Theory)	Urban Geography	 Describe the nature, scope, and recent trends in urban geography. Apply theories of Concentric Zone, Sector, and Multiple Nuclei to urban morphology. Apply concepts like Christaller's Central Place Theory, Rank Size Rule, and the Law of the Primate City to urban patterns. Study ecological processes of urban growth and characteristics of city regions. Evaluate the trend of Urbanization in India and urban problems by case studies of Delhi and Kolkata, including urban renewal programmes like JNNURM.
22	GEO/H/DS E/T/01/B (Theory)	Cultural and Settlement Geography	 Understand the scope, development, and content of cultural geography, including cultural hearths, processes of diffusion, and cultural diversity. Analyze the impact of culture, technology, and development on societies. Understand the scope and content of settlement geography; rural settlement morphology; house types in India; and definition of urban settlement. The classical urban morphology models and functional classification shall be used to understand the structure and functions of cities.
23	GEO/H/DS E/T/02/A (Theory)	Population Geography	 Understand the emergence of Population Geography and its relationship with demography. This will also be clarified through sources of population data: a) the census, and b) vital statistics, with a focus on India. Discuss the global pattern of population distribution;





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				growth patterns and the concept of optimum population. Illustrate the Malthusian and Marxian theories related to population. 3. Theories of migration, causes of migration, types of migration, and population policies in India and China - a critical assessment. 4. Population health and unemployment issues, the concept of Human Development Index, and its implications for population development.
24		GEO/H/DS E/T/02/B (Theory)	Social Geography	 Understand the nature, scope, and contents of the Social Geography, Social Groups, behaviour and structures. Discuss various aspects of social structure like caste, class, religion and race and perceive social stratification in India. Assess the concept and indicators of social well-being, living standards and quality of life, models by Knox and Smith. Discuss social problems of inclusion, exclusion, crimes, and violence. Understand the role and importance of SIA in this context. Discussion of various social policies in India, like Sarva Shiksha Abhiyan and National Rural Health Mission, and impacts on social development.
25	SEMEST ER-VI	GEO/H/CC/ T/13 (Theory)	Evolution of Geographical Thoughts	 Trace the development of geography from its ancient contributions of Greek, Chinese, and Indian geographers to the impact of the Dark Age and Arab contributions. The paper discusses how it evolved from cosmography to scientific geography, key figures like Bernard Varenius and Immanuel Kant, and the dualism issue affecting geographical thought. Critical evaluation of the contributions of major geographical thinkers and schools of thought from Germany, France, Britain, and the USA; to understand the evolution of geographical thought in India and the impact of the Quantitative Revolution. Recent trends and perspectives in geography -





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26		GEO/H/CC/ T/14 (Theory)	Disaster Management	2. 1 3. 1 4. 1	Behavioralism, Systems approach, Radicalism, Feminism, and the drift towards Post Modernism and changing concepts of space. Identify various hazards and disasters, and understand the approaches to risk perception, vulnerability assessment, and hazard paradigms. Evaluate the various responses to hazards in terms of preparedness, trauma management, and resilience in addition to capacity building. Learn about appropriate hazard mapping techniques and data utilized to implement effective hazard mapping and risk assessment. Analyze earthquakes, landslides, cyclones, and fire-one factor, vulnerability, consequences, and management strategies.
27		GEO/H/CC/ P/14 (Practical)	Disaster Management	 1. 2. 3. 4. 	Present a detailed analysis for any one disaster type, describing factors, impacts, and management strategies. Develop and propose a preparedness plan for a disaster in the vicinity of the candidate's institution or residence. Prepare an overall detailed project report on the analysis, preparedness plan, and recommendations regarding disaster management. Provide real-life applications of knowledge learned from theory, as it relates to disaster response and mitigation strategies.
28		GEO/H/DS E/T/03/A (Theory)	Fluvial Geomorphology	1. 2. 3. 1	Learn about the scope, importance, and how river systems and their hydrological elements are studied. Understand runoff processes, channel patterns, factors that control them; runoff cycle and drainage basins dynamics. Recognize different types of fluvial landforms and processes involved in their formation. Apply the basics of integrated watershed management, including management of river bank erosion and its impact on land use.





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29	GEO/H/DS E/T/03/B (Theory)	Resource Geography	 Define and classify natural resources; understand various approaches to utilization and conservation of resources. Distribution, Utilization, and Management of Metallic Resources - Iron Ore, Bauxite, Mica, Gypsum, and Other Non-metallic Resources. Problems and Management Strategies for Conventional and Non-conventional Energy Resources; Contemporary Energy Crises and Future Scenario. Address resource depletion in relation to interested sustainable use that could alleviate global environmental challenges.
30	GEO/H/DS E/T/04/A (Theory)	Soil and Bio Geography	 The formation and properties of soil involve describing factors and processes of soil formation; describe the characteristics and importance of different types of soils and their properties. Apply principles of soil classification and concepts of land capability for proper management of soils in relation to erosion and degradation. Define and explain basic ecological terms such as ecosystems, biomes, and trophic structures; recognize energy flow and nutrient cycling within these systems. Biodiversity and Conservation Describe the coverage and features of major biomes, assess the effects of deforestation, and evaluate biodiversity threats and conservation strategies.
31	GEO/H/DS E/T/04/B (Theory)	Agricultural Geography	 Describe origin and dispersal of agriculture and the role of agriculture in human society; identify major agricultural systems; and describe their characteristics. Crop patterns, crop combination, measures of agricultural productivity: Review Von Thunen's model in contemporary contexts Assess the factors affecting agricultural yield and productivity with special reference to irrigation practices and its importance in India. Discuss any agricultural issues in South Asia, contemporary global production trends, food security, and globalization of agriculture.

