

BARASAT GOVT COLLEGE
UNDER GRADUATE DEPARTMENT OF GEOGRAPHY
B.Sc. Geography (Hons) CBCS Syllabus
With effect from 2018-19

Program Outcome (PO)

PO 1	Disciplinary knowledge
PO 2	Analytical reasoning
PO 3	Information/digital literacy:
PO 4	Sense of inquiry
PO 5	Research-related skills:
PO 6	Cooperation/Team work
PO 7	Scientific reasoning
PO 8	Lifelong learning
PO 9	Problem solving

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Programme Specific Outcomes (PSO)

After successful completion of the UG course in Geography students will be able to:

- **PSO1:** Gain basic theoretical and practical concepts on various fields of geography.
- **PSO2:** Reveal the comprehensive and systematic knowledge of the subject.
- **PSO3:** Deal with current geographical issues and their solutions.
- **PSO4:** Evaluate critically various aspect of the subject in respect of spatial and temporal dimensions.
- **PSO5:** Prepare and Interpret maps and diagrams to illustrate various facets of the subject from global to local level on various time scales.
- **PSO6:** Acquire knowledge about various statistical methods, remote Sensing and GIS and can apply these knowledges in various application fields.
- **PSO7:** Learn about research activities, can extract the ground level realities through survey work and will be able to prepare project report.
- **PSO8:** Apply the acquired skills obtained from this discipline in their professional life in future.

BARASAT GOVERNMENT COLLEGE
Course Outcome or Learning Outcome
Three year B.A. /B.Sc. Degree Course
Under CBCS semester system
HONOURS COURSE IN GEOGRAPHY
With effect from the session: 2018 – 2019

Course Name: Core Course-1
Course Code: GEOACOR01T & GEOACOR01P
Topic Name: GEOTECTONICS AND GEOMORPHOLOGY

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Understand the geological time scale, interior of the earth, isostasy, plate tectonics and various types of fold and faults.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO2	Know weathering, mass wasting, different types of structure, development of landforms, granite, basalt and lime stone.	L1 Remembering	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO3	Understand the different geomorphic processes and associated landforms like coastal, glacial, aeoline.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO4	Learn about the models of landscape evaluation.	L1 Remembering	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO5	Identify different minerals and rocks.	L3 Applying	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO6	Interpret different geological maps with unconformity and intrusions on uniclinal and folded Structures.	L4 Annalysing	1,2,3,4,5,7,8	1,2,3,4,5,7,8
	CO7	Draw geological cross sections.	L6 Creating	1,2,3,4,5,7,8	1,2,3,4,5,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	2	2	1	2		1	2			3	2	3	2			1	1	
CO2	3	3	1	2	1		2	2			2	2	2	2			2	3	
CO3	3	1	2	1	3		2	1			2	1	3	1			2	2	
CO4	3	2	1	3	2		3	1			1	3	1	2			2	2	
CO5	3	3	3	2	2		3	2			3	3	2	3			3	1	
CO6	3	2	2	3	3		2	3			3	3	1	2	2		3	2	
CO7	3	2	3	2	3		2	3			3	3	2	1	2		3	2	
Average	3.00	2.14	2.00	2.00	2.29		2.14	2.00			2.43	2.43	2.00	1.86	2.00		2.29	1.86	

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Course Outcome or Learning Outcome
Three year B.A. /B.Sc. Degree Course
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HONOURS COURSE IN GEOGRAPHY
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Course Name: Core Course-2
Course Code: GEOACOR02T & GEOACOR02P
Topic Name: CARTOGRAPHIC TECHNIQUES

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Understand the components and types of a map.	L2 Understanding	1,2,3,4,5,8,9	1,2,3,5,7,8
	CO2	Learn about different types of scale	L1 Remembering	1,2,3,4,5,8,9	1,2,3,5,7,8
	CO3	Understand coordinate system, concept of UTM projection, system of measurement.	L2 Understanding	1,2,3,4,5,8,9	1,2,3,5,7,8
	CO4	Learn about reference scheme of old and open series topographical map of Survey of India and also it's margin concept.	L1 Remembering	1,2,3,4,5,8,9	1,2,3,5,7,8
	CO5	Delineate drainage basins from Survey of India topographical map.	L3 Applying	1,2,3,4,5,8,9	1,2,3,5,7,8
	CO6	Construct and interpret relief profiles and order streams on a drainage basin.	L4 Annalysing	1,2,3,4,5,8,9	1,2,3,5,7,8
	CO7	Identify the correlation between physical and cultural features from Survey of India topographical maps.	L3 Applying	1,2,3,4,5,8,9	1,2,3,5,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	1	1	1	1			1	1		3	3	2		2		2	1	
CO2	3	2	1	2	3			1	1		3	3	2		2		2	2	
CO3	3	1	2	1	2			2	2		3	3	2		3		1	2	
CO4	3	2	3	2	2			2	2		3	3	1		3		2	2	
CO5	3	3	2	3	3			2	3		3	3	3		3		2	1	
CO6	3	3	3	3	3			3	3		3	3	2		1		3	3	
CO7	3	2	3	3	3			3	3		3	3	3		3		3	2	
Average	3.00	2.00	2.14	2.14	2.43			2.00	2.14		3.00	3.00	2.14		2.43		2.14	1.86	

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HONOURS COURSE IN GEOGRAPHY
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Course Name: Core Course-3
Course Code: GEOACOR03T
Topic Name: HUMAN GEOGRAPHY

CO, PO & PSO Mapping					
Course Outcome:	SI No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Learn different approaches of Human Geography.	L1 Remembering	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO2	Understand the evolution of human civilization.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO3	Comprehend different races of the world and their characteristics.	L3 Applying	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO4	Analyze population distribution pattern.	L4 Annalysing	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO5	Learn about different Tribes of the world and their adaptation with nature.	L1 Remembering	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO6	Learn different theories of urban morphology.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,4,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	1	1	1	2		2	1			3	3	2	1			1	1	
CO2	3	1	2	1	2		2	3			3	3	2	2			2	2	
CO3	3	2	3	2	3		2	1			3	3	2	1			2	1	
CO4	3	3	1	3	2		2	3			3	3	3	2			2	1	
CO5	3	2	3	3	1		3	2			3	3	1	3			3	2	
CO6	3	3	2	2	3		3	3			3	3	3	3			3	2	
Average	3.00	2.00	2.00	2.00	2.17		2.33	2.17			3.00	3.00	2.17	2.00			2.17	1.50	

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HONOURS COURSE IN GEOGRAPHY
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Course Name: Core Course-4
Course Code: GEOACOR04T & GEOACOR04P
Topic Name: CARTOGRAM AND THEMATIC MAPPING

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Understand the concepts of rounding and scientific notation.	L2 Understanding	1,2,3,4,5,6,8	1,2,3,5,7,8
	CO2	Learn the basic aspects of map drawing, techniques of map drawing.	L1 Remembering	1,2,3,4,5,6,8	1,2,3,5,7,8
	CO3	Draw thematic maps like choropleth, dots and spheres, pie.	L6 Creating	1,2,3,4,5,6,8	1,2,3,5,7,8
	CO4	Get basic knowledge of surveying and knowledge of different surveying instruments.	L3 Applying	1,2,3,4,5,6,8	1,2,3,5,7,8
	CO5	Perform traverse survey using prismatic compass.	L4 Annalysing	1,2,3,4,5,6,8	1,2,3,5,7,8
	CO6	Make profile survey using dumpy Level.	L3 Applying	1,2,3,4,5,6,8	1,2,3,5,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	1	1	2	2	1		1			3	3	2		1		3	2	
CO2	3	2	2	1	1	2		1			3	3	2		2		3	2	
CO3	3	2	2	2	3	1		2			3	3	1		3		2	1	
CO4	3	2	3	2	2	2		2			3	3	3		3		3	2	
CO5	3	3	3	3	3	3		3			3	3	2		3		1	3	
CO6	3	3	3	3	3	3		3			3	3	2		3		2	2	
Average	3.00	2.17	2.33	2.17	2.33	2.00		2.00			3.00	3.00	2.00		2.50		2.33	2.00	

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Course Name: Core Course-5

Course Code: GEOACOR05T & GEOACOR05P

Topic Name: CLIMATOLOGY

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Understand the Nature, composition and layering of the atmosphere.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO2	Learn the interaction between the atmosphere and the earth's surface	L1 Remembering	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO3	Know about upper atmospheric conditions, Jet stream, fronts, and cyclonic features.	L2 Understanding	1,2,3,4,5,7,,8	1,2,3,4,7,8
	CO4	Learn different approaches to climatic classification and different climatic regions.	L3 Applying	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO5	Draw weather maps, hythergraph, climograph, and wind rose diagram.	L6 Creating	1,2,3,4,5,7,8	1,2,3,5,7,8
	CO6	Draw and interpret daily weather map of India for Pre-Monsoon, Monsoon and Post-Monsoon seasons.	L6 Creating	1,2,3,4,5,7,8	1,2,3,5,7,8
	CO7	Construct and interpret wind rose diagram.	L4 Annalysing	1,2,3,4,5,7,8	1,2,3,5,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	2	1	1	1		2	2			3	3	2	2			1	1	
CO2	3	1	2	1	1		1	2			3	3	2	1			2	1	
CO3	3	1	1	2	2		2	1			3	3	1	2			2	2	
CO4	3	2	3	2	2		1	1			3	3	3	3			3	1	
CO5	3	2	3	2	3		3	3			3	3	3		2		3	2	
CO6	3	3	3	2	3		3	3			3	3	2		3		3	2	
CO7	3	3	3	2	3		2	3			3	3	3		2		3	3	
Average	3.00	2.00	2.29	1.71	2.14		2.00	2.14			3.00	3.00	2.29	2.00	2.33		2.43	1.71	

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HONOURS COURSE IN GEOGRAPHY
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Course Name: Core Course-6

Course Code: GEOACOR06T

Topic Name: GEOGRAPHY OF INDIA

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Learn about the detailed physiographic, climatic, soil, vegetational features of India.	L1 Remembering	1,2,3,4,5,8	1,2,3,4,7,8
	CO2	Understand about the details of different tribes of India.	L2 Understanding	1,2,3,4,5,8	1,2,3,4,7,8
	CO3	Learn about the agricultural regions and green revolution in India.	L1 Remembering	1,2,3,4,5,8	1,2,3,4,7,8
	CO4	Gain knowledge on the distribution of mineral resources and Industrial distribution.	L3 Applying	1,2,3,4,5,8	1,2,3,4,7,8
	CO5	Develop an idea about the regionalization of India.	L3 Applying	1,2,3,4,5,8	1,2,3,4,7,8
	CO6	Know the physical perspectives, forest, water, economic resources of West Bengal.	L2 Understanding	1,2,3,4,5,8	1,2,3,4,7,8
	CO7	Understand the economic resources of West Bengal.	L2 Understanding	1,2,3,4,5,8	1,2,3,4,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	2	3	2	2			1			3	3	1	1			1	1	
CO2	3	1	1	1	2			3			3	3	1	1			2	1	
CO3	3	2	2	1	3			1			3	3	2	3			2	2	
CO4	3	1	3	3	1			2			3	3	2	3			2	2	
CO5	3	2	1	3	3			2			3	3	3	2			3	3	
CO6	3	3	3	2	2			3			3	3	3	3			3	1	
CO7	3	3	2	2	3			3			3	3	3	3			3	2	
Average	3.00	2.00	2.14	2.00	2.29			2.14			3.00	3.00	2.14	2.29			2.29	1.71	

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HONOURS COURSE IN GEOGRAPHY
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Course Name: Core Course-7
Course Code: GEOACOR07T & GEOACOR07P
Topic Name: STATISTICAL METHODS IN GEOGRAPHY

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Learn the significance of statistics in geography.	L1 Remembering	1,2,3,4,5,8,9	1,2,3,6,7,8
	CO2	Understand the importance of the use of data in geography.	L2 Understanding	1,2,3,4,5,8,9	1,2,3,6,7,8
	CO3	Interpret statistical data for a holistic understanding of geographical phenomena.	L4 Annalysing	1,2,3,4,5,8,9	1,2,3,6,7,8
	CO4	Know about different types of sampling.	L2 Understanding	1,2,3,4,5,8,9	1,2,3,6,7,8
	CO5	Develop an idea about theoretical distribution and scales of measurement.	L4 Annalysing	1,2,3,4,5,8,9	1,2,3,6,7,8
	CO6	Acquire knowledge about correlation, regression, and time series analysis.	L3 Applying	1,2,3,4,5,8,9	1,2,3,6,7,8
	CO7	Compute and interpret frequency table, measures of central tendency and dispersion.	L3 Applying	1,2,3,4,5,8,9	1,2,3,6,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	2	2	2	2			1	1		3	3	2			2	1	2	
CO2	3	1	1	1	1			1	3		3	3	1			1	2	2	
CO3	3	2	1	1	3			2	2		3	3	2			2	2	1	
CO4	3	1	2	2	3			2	3		3	3	2			3	3	1	
CO5	3	2	3	3	3			3	2		3	3	1			3	3	2	
CO6	3	3	3	3	2			3	3		3	3	3			3	3	2	
CO7	3	2	3	2	2			3	2		3	3	3			3	3	3	
Average	3.00	1.86	2.14	2.00	2.29			2.14	2.29		3.00	3.00	2.00			2.43	2.43	1.86	

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HONOURS COURSE IN GEOGRAPHY
With effect from the session: 2018 – 2019

Course Name: Core Course-8

Course Code: GEOACOR08T

Topic Name: REGIONAL PLANNING AND DEVELOPMENT

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Understand types of region as an integral part of geographical study.	L2 Understanding	1,2,3,4,5,8,9	1,2,3,4,7,8
	CO2	Know about delineation of region.	L1 Remembering	1,2,3,4,5,8,9	1,2,3,4,7,8
	CO3	Gain knowledge about types, objectives, tools and needs of regional planning with special reference to India.	L1 Remembering	1,2,3,4,5,8,9	1,2,3,4,7,8
	CO4	Learn about the various indicators of development as well as human development.	L2 Understanding	1,2,3,4,5,8,9	1,2,3,4,7,8
	CO5	Build an idea about theories and models for regional development.	L3 Applying	1,2,3,4,5,8,9	1,2,3,4,7,8
	CO6	Appreciate the varied aspects of under development and regional disparity, in order to formulate measures of balanced development.	L4 Annalysing	1,2,3,4,5,8,9	1,2,3,4,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	2	2	1	2			1	2		3	3	1	1			3	2	
CO2	3	2	1	1	1			2	3		3	3	2	2			2	1	
CO3	3	1	2	2	3			1	1		3	3	2	2			3	2	
CO4	3	3	2	3	3			2	2		3	3	3	3			3	2	
CO5	3	2	3	2	2			3	3		3	3	2	3			1	1	
CO6	3	2	3	3	3			3	3		3	3	3	3			3	3	
Average	3.00	2.00	2.17	2.00	2.33			2.00	2.33		3.00	3.00	2.17	2.33			2.50	1.83	

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Course Name: Core Course-9

Course Code: GEOACOR09T

Topic Name: ECONOMIC GEOGRAPHY

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Assess the significance of Economic Geography, the concept of economic man.	L4 Annalysing	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO2	Gain knowledge about economic distance and transport cost.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO3	Understand the concept of economic activity.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO4	Analyze the factors of location of agriculture and industries.	L4 Annalysing	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO5	Gain knowledge about different types of Economic activities.	L1 Remembering	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO6	Understand the concepts of transport network and flows.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO7	Assess the significance and functioning of international trade and economic blocks.	L5 Evaluating	1,2,3,4,5,7,8	1,2,3,4,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	1	2	1	2		1	1			3	3	1	1			1	1	
CO2	3	2	2	1	1		2	2			3	3	2	2			2	1	
CO3	3	1	1	2	2		1	3			3	3	2	2			2	1	
CO4	3	2	3	3	2		2	2			3	3	2	3			3	2	
CO5	3	2	2	2	3		2	3			3	3	3	3			3	3	
CO6	3	3	3	2	3		3	2			3	3	3	1			3	2	
CO7	3	3	3	3	3		3	2			3	3	3	3			3	3	
Average	3.00	2.00	2.29	2.00	2.29		2.00	2.14			3.00	3.00	2.29	2.14			2.43	1.86	

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With effect from the session: 2018 – 2019

Course Name: Core Course-10
Course Code: GEOACOR10T & GEOACOR10P
Topic Name: ENVIRONMENTAL GEOGRAPHY

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Gain knowledge about different concepts, scope of environmental geography.	L2 Understanding	1,2,3,4,5,8,9	1,2,3,4,7,8
	CO2	Develop an idea about space time hierarchy of environmental problems.	L2 Understanding	1,2,3,4,5,8,9	1,2,3,4,7,8
	CO3	Build an idea about current environmental issues like pollution, waste management etc.	L2 Understanding	1,2,3,4,5,8,9	1,2,3,4,7,8
	CO4	Know how to prepare a questionnaire for perception survey on environmental problem.	L1 Remembering	1,2,3,4,5,8,9	1,2,3,4,7,8
	CO5	Develop concepts and skills regarding preparation of check list for Environmental Impact Assessment	L3 Applying	1,2,3,4,5,8,9	1,2,3,4,7,8
	CO6	Learn skills regarding interpretation of air quality using secondary data sources	L1 Remembering	1,2,3,4,5,8,9	1,2,3,4,7,8
	CO7	Make check-list for Environmental Impact Assessment of an urban / industrial project.	L3 Applying	1,2,3,4,5,8,9	1,2,3,4,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	2	1	1	2			1	1		3	3	1	1			1	1	
CO2	3	2	1	2	1			1	2		3	3	1	2			1	1	
CO3	3	3	2	1	3			2	3		3	3	2	2			2	2	
CO4	3	3	2	2	3			2	3		3	3	2	2			2	2	
CO5	3	1	3	2	1			3	2		3	3	3	3			3	2	
CO6	3	2	3	3	3			2	3		3	3	3	3			3	3	
CO7	3	3	3	3	3			3	3		3	3	3	3			3	3	
Average	3.00	2.29	2.14	2.00	2.29			2.00	2.43		3.00	3.00	2.14	2.29			2.14	2.00	

BARASAT GOVERNMENT COLLEGE
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With effect from the session: 2018 – 2019

Course Name: Core Course-11
Course Code: GEOACOR11T & GEOACOR11P
Topic Name: FIELD WORK AND RESEARCH METHODOLOGY

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Learn the significance of field work and research in geographical studies.	L1 Remembering	1,2,3,4,5,6,8	1,2,3,5,7,8
	CO2	Know about different types of field techniques and develop ideas about research design, problems.	L2 Understanding	1,2,3,4,5,6,8	1,2,3,5,7,8
	CO3	Understand the field ethics and different tools of field study.	L2 Understanding	1,2,3,4,5,6,8	1,2,3,5,7,8
	CO4	Learn the process to collect primary data from the field and to use secondary data.	L1 Remembering	1,2,3,4,5,6,8	1,2,3,5,7,8
	CO5	Conduct field work on physical and socio-economic aspects of geographical landscapes.	L3 Applying	1,2,3,4,5,6,8	1,2,3,5,7,8
	CO6	Prepare field report with suitable tables, maps and diagrams based on collected data and to represent the realities of the study area.	L6 Creating	1,2,3,4,5,6,8	1,2,3,5,7,8
	CO7	Draw different field maps and diagrams.	L6 Creating	1,2,3,4,5,6,8	1,2,3,5,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	1	1	1	2	1		2			3	3	1		1		1	1	
CO2	3	1	1	2	1	1		2			3	3	1		1		2	1	
CO3	3	2	2	1	2	2		2			3	3	2		2		3	2	
CO4	3	2	3	3	3	3		3			3	3	2		2		2	2	
CO5	3	3	2	3	3	3		1			3	3	3		3		3	2	
CO6	3	3	3	2	3	3		3			3	3	3		3		2	3	
CO7	3	2	3	3	3	3		1			3	3	3		3		3	3	
Average	3.00	2.00	2.14	2.14	2.43	2.29		2.00			3.00	3.00	2.14		2.14		2.29	2.00	

BARASAT GOVERNMENT COLLEGE
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With effect from the session: 2018 – 2019

Course Name: Core Course-12

Course Code: GEOACOR12T & GEOACOR12P

Topic Name: DISASTER MANAGEMENT

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Perform geo-referencing of maps and images using open-source software.	L3 Applying	1,2,3,4,5,7,8	1,2,3,5,6,7,8
	CO2	Prepare FCC and identify features using standard FCC and other band combinations.	L3 Applying	1,2,3,4,5,7,8	1,2,3,5,6,7,8
	CO3	Digitize features and attach data.	L6 Creating	1,2,3,4,5,7,8	1,2,3,5,6,7,8
	CO4	Conduct overlay analysis and prepare annotated thematic maps: choropleth, pie chart and bar graphs.	L4 Annalysing	1,2,3,4,5,7,8	1,2,3,5,6,7,8
	CO5	Learn the basics of GPS	L2 Understanding	1,2,3,4,5,7,8	1,2,3,5,6,7,8
	CO6	Understand different possible areas of application of GPS survey.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,5,6,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	1	2	1	2		1	1			3	3	2		1	1	2	1	
CO2	3	2	2	1	1		2	3			3	3	1		1	2	1	1	
CO3	3	3	1	2	3		2	1			3	3	2		2	3	2	2	
CO4	3	2	3	3	3		2	3			3	3	3		3	3	3	2	
CO5	3	3	3	3	2		3	2			3	3	3		3	3	3	3	
CO6	3	2	3	3	3		3	2			3	3	3		3	3	3	3	
Average	3.00	2.17	2.33	2.17	2.33		2.17	2.00			3.00	3.00	2.33		2.17	2.50	2.33	2.00	

BARASAT GOVERNMENT COLLEGE
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Under CBCS semester system
HONOURS COURSE IN GEOGRAPHY
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Course Name: Core Course-13

Course Code: GEOACOR13T

Topic Name: EVOLUTION OF GEOGRAPHICAL THOUGHT

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Identify the evolution of the philosophical thoughts of Geography/Earth Sciences.	L3 Applying	1,2,3,4,5,8	1,2,4,7,8
	CO2	Escalate the contribution of the great thinkers in Geography/ Earth Sciences.	L4 Annalysing	1,2,3,4,5,8	1,2,4,7,8
	CO3	Make Comparative study of different schools of geographical thought developed in different Period/Phase.	L3 Applying	1,2,3,4,5,8	1,2,4,7,8
	CO4	Learn the evolution of geographical thought from ancient to modern to post- modern times.	L1 Remembering	1,2,3,4,5,8	1,2,4,7,8
	CO5	Establish the relationship of Geography with other allied disciplines	L4 Annalysing	1,2,3,4,5,8	1,2,4,7,8
	CO6	Understand the changing scenario of man-environment relationships through time.	L2 Understanding	1,2,3,4,5,8	1,2,4,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	2	1	2	2			2			3	3		1			3	1	
CO2	3	1	2	1	3			3			3	3		2			1	1	
CO3	3	1	2	2	1			3			3	3		3			2	1	
CO4	3	3	3	2	3			2			3	3		3			2	3	
CO5	3	3	3	3	3			1			3	3		2			3	2	
CO6	3	2	3	3	3			2			3	3		2			3	2	
Average	3.00	2.00	2.33	2.17	2.50			2.17			3.00	3.00		2.17			2.33	1.67	

BARASAT GOVERNMENT COLLEGE
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HONOURS COURSE IN GEOGRAPHY
With effect from the session: 2018 – 2019

Course Name: Core Course-14

Course Code: GEOACOR14T & GEOACOR14P

Topic Name: DISASTER MANAGEMENT

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Understand the concept and classification of hazards and disasters.	L2 Understanding	1,2,3,4,5,8,9	1,2,3,7,8
	CO2	Gain the knowledge of approaches to hazards study.	L3 Applying	1,2,3,4,5,8,9	1,2,3,7,8
	CO3	Know about the human responses to the hazards.	L1 Remembering	1,2,3,4,5,8	1,2,3,7,8
	CO4	Acquire comprehensive knowledge on various disasters in India with special reference to the consequences and mitigation measures.	L2 Understanding	1,2,3,4,5,8,9	1,2,3,7,8
	CO5	Write a report on disaster incorporating a preparedness plan.	L6 Creating	1,2,3,4,5,8,9	1,2,3,7,8
	CO6	Prepare one individual report based on case study on disasters that have occurred in West Bengal.	L3 Applying	1,2,3,4,5,8,9	1,2,3,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	2	2	1	2			2	1		3	3	1				1	1	
CO2	3	1	2	2	1			1	1		3	3	3				2	2	
CO3	3	1	1	2	3			2	2		3	3	2				2	1	
CO4	3	2	3	2	2			3	2		3	3	3				3	2	
CO5	3	3	3	3	3			2	3		3	3	3				3	3	
CO6	3	3	3	3	3			2	3		3	3	3				3	3	
Average	3.00	2.00	2.33	2.17	2.33			2.00	2.00		3.00	3.00	2.50				2.33	2.00	

BARASAT GOVERNMENT COLLEGE
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HONOURS COURSE IN GEOGRAPHY
With effect from the session: 2018 – 2019

Course Name: Discipline Specific Elective-1

Course Code: GEOADSE01T

Topic Name: SOIL AND BIO GEOGRAPHY

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Gain knowledge of the soil formation processes	L2 Understanding	1,2,3,4,5,8	1,2,3,4,7,8
	CO2	Learn about different types of soil profiles.	L1 Remembering	1,2,3,4,5,8	1,2,3,4,7,8
	CO3	Learn about the physical and chemical properties of soil.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO4	Have comprehensive knowledge of soil erosion and degradation	L3 Applying	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO5	Learn about different soil classification systems.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO6	Learn about the concept of biosphere, ecosystem, ecotone, community, niche, succession, ecology, trophic structure, food chain, food web, biomes, bio geo chemical cycles.	L3 Applying	1,2,3,4,5,7,8	1,2,3,4,7,8
	CO7	Gain knowledge of bio diversity and man environment relation.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,4,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	2	1	1	2			1			3	3	2	1			1	1	
CO2	3	1	2	1	1			2			3	3	2	1			2	1	
CO3	3	1	2	2	1		1	2			3	3	1	2			2	2	
CO4	3	2	2	3	2		2	3			3	3	3	3			3	2	
CO5	3	3	3	2	3		2	2			3	3	2	2			3	2	
CO6	3	3	3	3	3		3	3			3	3	3	3			3	3	
CO7	3	2	3	2	3		3	3			3	3	3	3			3	3	
Average	3.00	2.00	2.29	2.00	2.14		2.20	2.29			3.00	3.00	2.29	2.14			2.43	2.00	

BARASAT GOVERNMENT COLLEGE
Course Outcome or Learning Outcome
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HONOURS COURSE IN GEOGRAPHY
With effect from the session: 2018 – 2019

Course Name: Discipline Specific Elective-2

Course Code: GEOADSE03T

Topic Name: POPULATION GEOGRAPHY

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Learn about the development of Population Geography.	L1 Remembering	1,2,3,4,5,8	1,2,3,4,7,8
	CO2	Gain comprehensive knowledge of population distribution and theories related to it.	L2 Understanding	1,2,3,4,5,8	1,2,3,4,7,8
	CO3	Know about the growth and distribution of Indian and World population.	L2 Understanding	1,2,3,4,5,8	1,2,3,4,7,8
	CO4	Acquire concept of varies component of Population Geography like age-sex structure, fertility, mortality, population composition, migration.	L3 Applying	1,2,3,4,5,8	1,2,3,4,7,8
	CO5	Learn about different population policies in developed and less developed countries.	L1 Remembering	1,2,3,4,5,8	1,2,3,4,7,8
	CO6	Gain knowledge of various contemporary issues on population studies.	L2 Understanding	1,2,3,4,5,8	1,2,3,4,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	2	1	2	2			1			3	3	1	1			1	1	
CO2	3	1	3	1	1			1			3	3	2	2			2	1	
CO3	3	3	1	2	3			2			3	3	3	3			3	3	
CO4	3	3	2	3	3			3			3	3	3	2			3	2	
CO5	3	2	3	2	3			3			3	3	1	3			2	2	
CO6	3	3	3	3	3			2			3	3	3	3			3	3	
Average	3.00	2.33	2.17	2.17	2.50			2.00			3.00	3.00	2.17	2.33			2.33	2.00	

BARASAT GOVERNMENT COLLEGE
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HONOURS COURSE IN GEOGRAPHY
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Course Name: Discipline Specific Elective-3
Course Code: GEOADSE04T
Topic Name: HYDROLOGY AND OCEANOGRAPHY

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Understand the concept of hydrological cycle.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,7,8
	CO2	Assess the factors of Infiltration and evapotranspiration of run off cycle.	L4 Annalysing	1,2,3,4,5,7,8	1,2,3,7,8
	CO3	Identify the watershed of different scale and related management practices.	L3 Applying	1,2,3,4,5,7,8	1,2,3,7,8
	CO4	Evaluate the factors controlling recharge, discharge and movement of water in a local and regional scale.	L5 Evaluating	1,2,3,4,5,7,8	1,2,3,7,8
	CO5	Assess the physical and chemical properties of ocean water including T-S diagram.	L4 Annalysing	1,2,3,4,5,7,8	1,2,3,7,8
	CO6	Acquire knowledge on determinants of ocean temperature and salinity of different oceans and their distribution.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,7,8
	CO7	Know the concept of Sea Level Change in global and regional level.	L1 Remembering	1,2,3,4,5,7,8	1,2,3,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	1	1	1	2		2	2			3	3	1				1	1	
CO2	3	2	2	2	2		2	1			3	3	2				2	1	
CO3	3	1	1	1	1		3	2			3	3	1				2	2	
CO4	3	2	2	3	3		1	2			3	3	3				3	2	
CO5	3	3	3	3	3		1	3			3	3	3				3	2	
CO6	3	2	3	3	2		3	3			3	3	2				3	3	
CO7	3	3	3	3	3		3	3			3	3	3				3	3	
Average	3.00	2.00	2.14	2.29	2.29		2.14	2.29			3.00	3.00	2.14				2.43	2.00	

BARASAT GOVERNMENT COLLEGE
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With effect from the session: 2018 – 2019

Course Name: Discipline Specific Elective-4

Course Code: GEOADSE06T

Topic Name: RESOURCE GEOGRAPHY

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Understand the concept and classification of resources.	L2 Understanding	1,2,3,4,5,8	1,2,3,7,8
	CO2	Gain the concept of Conservation of Natural Resources: Forest and Water.	L1 Remembering	1,2,3,4,5,8	1,2,3,7,8
	CO3	Analyze the problems of resource depletion in view of Sustainable Resource development attempts.	L4 Annalysing	1,2,3,4,5,8	1,2,3,7,8
	CO4	Examine the contemporary energy crisis and assess the future scenario: regional and global scale.	L5 Evaluating	1,2,3,4,5,8	1,2,3,7,8
	CO5	Assess different management practices of Energy Resources: Conventional and Non-Conventional.	L4 Annalysing	1,2,3,4,5,8	1,2,3,7,8
	CO6	Appreciate the concept of Limits to Growth, resource sharing and sustainable use of resources.	L3 Applying	1,2,3,4,5,8	1,2,3,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	1	1	1	1			2			3	3	1				1	2	
CO2	3	2	2	1	2			2			3	3	1				2	1	
CO3	3	1	3	2	2			3			3	3	2				3	2	
CO4	3	2	3	3	3			3			3	3	3				3	1	
CO5	3	3	3	3	3			1			3	3	3				3	2	
CO6	3	3	3	2	3			2			3	3	3				3	2	
Average	3.00	2.00	2.50	2.00	2.33			2.17			3.00	3.00	2.17				2.50	1.67	

BARASAT GOVERNMENT COLLEGE
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HONOURS COURSE IN GEOGRAPHY
With effect from the session: 2018 – 2019

Course Name: Skill Enhancement Course-1

Course Code: GEOSSEC01M

Topic Name: REMOTE SENSING

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Understand the principles of remote sensing.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,6,7,8
	CO2	Classify Remote Sensing satellites and sensors.	L3 Applying	1,2,3,4,5,7,8	1,2,3,6,7,8
	CO3	Comprehend sensor resolutions and their applications concerning IRS and Landsat missions, image referencing schemes and data acquisition.	L4 Annalysing	1,2,3,4,5,7,8	1,2,3,6,7,8
	CO4	Understand FCC and learn to prepare False Colour Composites from IRS LISS-3 and Landsat TM and OLI data.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,6,7,8
	CO5	Understand the principles of image rectification and enhancement.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,6,7,8
	CO6	Prepare inventories of land use land cover features from satellite images.	L4 Annalysing	1,2,3,4,5,7,8	1,2,3,6,7,8
	CO7	Develop an idea about satellite image interpretation.	L2 Understanding	1,2,3,4,5,7,8	1,2,3,6,7,8

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	1	1	1	1		2	2			3	3	1			2	1	1	
CO2	3	1	2	2	1		2	3			3	3	1			1	2	1	
CO3	3	2	2	3	2		1	2			3	3	2			2	2	2	
CO4	3	3	3	3	2		1	1			3	3	3			3	3	2	
CO5	3	3	3	1	3		3	1			3	3	3			3	2	3	
CO6	3	3	3	3	3		3	3			3	3	3			3	3	1	
CO7	3	3	3	3	3		3	2			3	3	3			3	3	3	
Average	3.00	2.29	2.43	2.29	2.14		2.14	2.00			3.00	3.00	2.29			2.43	2.29	1.86	

BARASAT GOVERNMENT COLLEGE
Course Outcome or Learning Outcome
Three year B.A. /B.Sc. Degree Course
Under CBCS semester system
HONOURS COURSE IN GEOGRAPHY
With effect from the session: 2018 – 2019

Course Name: Skill Enhancement Course-2
Course Code: GEOSSEC02M
Topic Name: ADVANCED SPATIAL STATISTICAL TECHNIQUES

CO, PO & PSO Mapping					
Course Outcome:	Sl No	Course outcome	Knowledge level Blooms Level	POs Mapping	PSOs mapping
	CO1	Learn the significance of statistics in geography.	L1 Remembering	1,2,3,4,5,8,9	1,2,3,6,7,8
	CO2	Learn about the probability theory and their application in geography.	L1 Remembering	1,2,3,4,5,8,9	1,2,3,4,5,8,9
	CO3	Understand various sampling techniques and sampling estimates.	L2 Understanding	1,2,3,4,5,8,9	1,2,3,4,5,8,9
	CO4	Gain knowledge about the correlation and regression.	L2 Understanding	1,2,3,4,5,8,9	1,2,3,4,5,8,9
	CO5	Gain basic knowledge about simple curvilinear regression.	L2 Understanding	1,2,3,4,5,8,9	1,2,3,4,5,8,9
	CO6	Recognize the importance and application of time series analysis.	L3 Applying	1,2,3,4,5,8,9	1,2,3,4,5,8,9

Program Articulation Matrix (CO-PO Matrix)																			
PO \ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	3	2	2	2	2			2	2		3	3	2			1	1	1	
CO2	3	2	2	1	1			2	1		3	3	1			2	2	1	
CO3	3	1	1	3	1			3	2		3	3	2			3	2	2	
CO4	3	1	3	1	3			1	3		3	3	2			3	3	2	
CO5	3	3	3	3	3			2	3		3	3	3			3	3	2	
CO6	3	2	3	3	3			2	3		3	3	3			3	3	3	
Average	3.00	1.83	2.33	2.17	2.17			2.00	2.33		3.00	3.00	2.17			2.50	2.33	1.83	