

**Modules of Classes and Examinations, Even Semester-January to June
(2023-'24)**

**CCFUP 4 Years or 3 Years Degree in Geography
Hiralal Bhakat College**

Semester-II

Course Type: Major

Course No.: II

Course Title: Population and Settlement geography

Course Code: GEOG 2011

Evaluation process is divided into three (3) components, viz. C1, C2, and C3.

Total Marks: **75** (10+5+60), Credits: 4, Lecture Hours: 60

10 Marks for Internal Assessment (will be organized by the College in general and Department in Particular), that is **C1**. 10 Marks will be evaluated through **Class Test** or Assignment or Seminar. Appearance in C1 is mandatory.

Marks division of Class Test will be 10 or **5+5** or 2+2+2+2+2.

Tentative **Date** and **Time** of Class Test or Assignment or Seminar: During the end of the 10th week of the semester when approximately 60% of the syllabus of course is to be completed.

5 Marks for Attendance that is **C2**.

Attendance: 50% & above but below 60% - 2 Marks

Attendance: 60% & above but below 75% - 3 Marks

Attendance: 75% & above but below 90% - 4 Marks

Attendance: 90% & Above - 5 Marks

60 Marks for Semester-end-Examination (will be organized by University), that is **C3**.

Syllabus: Whole

Duration: Three Hours

Question Pattern:

Answer 10 questions out of 15 carrying 02 marks each = 10 x 02 = 20 marks.

Answer 04 questions out of 06 carrying 05 marks each = 04 x 05 = 20 marks.

Answer 02 questions out of 04 carrying 10 marks each = 02 x 10 = 20 marks.

Topic List

Unit-1: Population Geography

Sl. No.	Topic	Lecture Hours	Name of Teacher(s)
1	Development of Population Geography; Relation between Population Geography and Demography	4	Biswajit Mondal
2	Determinants of Population Dynamics: Fertility, Mor	4	Sajal Ghosh

	talityandMigration		
3	Measures of Fertility and Mortality	5	Sajal Ghosh
4	Migration: Theories, Causes and Types	5	Sajal Ghosh
5	Theories of population growth: Malthus and Marx; Demographic Transition Theory(Thompson and Notestein)	6	Rejaul Islam Sana
6	Population Composition (Age-Sex; Occupational Structure); Population (India and Sweden).	6	Chandan Ghosh

Unit-2: Settlement geography

Sl. No.	Topic	Lecture Hours	Name of Teacher(s)
1	1.DevelopmentofSettlementGeography	4	Biswajit Mondal
2	2.CharacteristicsofRuralSettlement: Site, Situation, types and Pattern	4	Sajal Ghosh
3	3.MorphologyofruralSettlements	4	Sajal Ghosh
4	4.UrbanSettlements:CensusDefinition,UrbanAgglomeration; Urban sprawl, Rural-urban Continuum, Rurban and Periurban	5	Sajal Ghosh
5	5.UrbanMorphology:Classical Models of Burgess, Hoyt, Harris and Ullman	6	Rejaul Islam Sana
6	1.DevelopmentofSettlementGeography	6	Chandan Ghosh

Semester-II

Course Type: Skill Enhancement Course (SEC)

Course No.: II

Course Title: Field Survey Techniques (Theory)

Course Code: GEOG 2051

Evaluation process is divided into three (3) components, viz. C1, C2, and C3.

Total Marks: **50** (10+40), Credits: 3, Lecture Hours: 45

10 Marks for Internal Assessment (will be organized by the College in general and Department in Particular), that is **C1**. 10 Marks will be evaluated through **Class Test** or Assignment or Seminar. Appearance in C1 is mandatory.

Marks division of Class Test will be 10 or **5+5** or 2+2+2+2+2.

Tentative **Date** and **Time** of Class Test or Assignment or Seminar: During the end of the 10th week of the semester when approximately 60% of the syllabus of course is to be completed.

C2 is not applicable for SEC.

40 Marks for Semester-end-Examination (will be organized by University) that is **C3**.

Syllabus: Whole

Duration: Four Hours

Question Pattern:

Laboratory Notebook – 05 marks

Viva-voce – 10 marks

Experiments – 25 marks

Topic List

Sl. No.	Topic	Lecture Hours	Name of Teacher(s)
1	Field work in Geographical studies–Role and significance, Selection of study area and objectives, Pre-field preparations, Ethics of fieldwork	10	Indranil Mondal
2	Preparation of Survey Schedule and Questionnaires (open, closed, structured, non-structured)	8	Chandan Ghosh
3	Interview with special reference to focused group discussions	7	Rejaul Islam Sana
4	Field techniques and tools: Landscape survey using transects and quadrants, constructing a sketch, photo and video recording	10	Niladri Das
5	Collection of samples. Preparation of inventory from field data. Post-field tasks	10	Chandan Ghosh

**Modules of Classes and Examinations, Even Semester- January to June
(2023-24')**

B.A / B.Sc. (Honours) in Geography

Semester-IV

Hiralal Bhakat College, Nalhati

Core Course-8 (CC-8) Regional Planning and Development

Evaluation process is divided into four (4) components, viz. C1, C2, C3 and C4. Internal Assessment of each course will consist of **C1** and **C2**. C1 and C2 will be taken together. 2/3 of the syllabus is to be completed during the 16th week of the course. Appearance in C1 & C2 is mandatory.

Total Marks: **75** (10+5+60), Credits: 6, Lecture Hours: 6 (per Week)

10 Marks for Internal Assessment (will be organized by College in general and Department in Particular). 10 Marks will be evaluated through Class Test or Assignment or Seminar. Marks division of Class Test will be 10 or **5+5** or 2+2+2+2+2.

5 Marks for Attendance that is **C3**.

Attendance: 50% & above but below 60% - 2 Marks

Attendance: 60% & above but below 75% - 3 Marks

Attendance: 75% & above but below 90% - 4 Marks

Attendance: 90% & Above - 5 Marks

60 Marks for Semester-end-Examination (will be organized by University) that is C4.

Syllabus: Whole

Duration: Three Hours

Question Pattern:

Answer 10 questions out of 15 carrying 02 marks each = 10 x 02 = 20 marks

Answer 04 questions out of 06 carrying 05 marks each = 04 x 05 = 20 marks

Answer 02 questions out of 04 carrying 10 marks each = 02 x 10 = 20 marks

Topic List

Unit-1: Regional Planning

Sl. No.	Topic	Name of Teacher(s)
1	Concept and Classification of Regions	Indranil Mondal
2	Types of Planning; Principles and Techniques of Regional Planning	Indranil Mondal
3	Need for Regional Planning; Multi level Planning in India	Indranil Mondal
4	Metropolitan Concept: Metropolis, Metropolitan Areas, Metropolitan Region	Niladri Das

Unit-2: Regional Development

Sl. No.	Topic	Name of Teacher(s)
1	Development: Meaning, Growth versus Development	Biswajit Mondal
2	Models for Regional Development: Growth Pole (Perroux) and Core Periphery (Hirschman)	Chandan Ghosh
3	Model for Regional Development in India: Growth Foci (R.P.Misra)	Chandan Ghosh
4	Concept of Regional Inequality and Disparity	Chandan Ghosh
5	Human Development: Significance, Indicators and Measurement	Rejaul Islam Sana
6	Status of Regional Imbalances in India	Rejaul Islam Sana
7	Strategies for Regional Development in India	Rejaul Islam Sana
8	NITI Aayog and its Functions	Biswajit Mondal

Core Course-9 (CC-9) Economic Geography

Evaluation process is divided into four (4) components, viz. C1, C2, C3 and C4. Internal Assessment of each course will consist of **C1** and **C2**. C1 and C2 will be taken together. 2/3 of the syllabus is to be completed during the 16th week of the course. Appearance in C1 & C2 is mandatory.

Total Marks: **75** (10+5+60), Credits: 6, Lecture Hours: 6 (per Week)

10 Marks for Internal Assessment (will be organized by College in general and Department in Particular). 10 Marks will be evaluated through Class Test or Assignment or Seminar. Marks division of Class Test will be 10 or **5+5** or 2+2+2+2+2.

5 Marks for Attendance that is **C3**.

Attendance: 50% & above but below 60% - 2 Marks

Attendance: 60% & above but below 75% - 3 Marks

Attendance: 75% & above but below 90% - 4 Marks

Attendance: 90% & Above - 5 Marks

60 Marks for Semester-end-Examination (will be organized by University) that is C4.

Syllabus: Whole

Duration: Three Hours

Question Pattern:

Answer 10 questions out of 15 carrying 02 marks each = 10 x 02 = 20 marks

Answer 04 questions out of 06 carrying 05 marks each = 04 x 05 = 20 marks

Answer 02 questions out of 04 carrying 10 marks each = 02 x 10 = 20 marks

Unit-1: Concepts and Approaches

Sl. No.	Topic	Name of Teacher(s)
1	Meaning and Approaches to Economic Geography	Biswajit Mondal
2	Concepts in Economic Geography: Goods; Services; Production; Consumption	Biswajit Mondal
3	Factors Influencing Location of Economic Activity and Forces of Agglomeration	Niladri Das
4	Determining Factors of Transport Cost	Niladri Das

Unit-2: Economic Activities

Sl. No.	Topic	Name of Teacher(s)
1	Concept and Classification of Economic Activities	Sajal Ghosh
2	Location Theories: Von Thünen and Alfred Weber	Sajal Ghosh
3	Primary Activities: Subsistence and Commercial Agriculture; Forestry; Fishing	Biplob Sen
4	Secondary Activities: Manufacturing (Iron and Steel in India and Japan, Petrochemical in India and USA)	Biplob Sen
5	Tertiary Activities: Types of Trade and Services	Biplob Sen
6	Agricultural Systems: Tea Plantation in India and Mixed Farming in Europe	Biswajit Mondal
7	Highways: Roles in Economic Development of India since 1990s	Niladri Das
8	International Trade Blocs: WTO and OPEC	Rejaul Islam Sana

Core Course-10 (CC-10) Environmental Geography

Evaluation process is divided into four (4) components, viz. C1, C2, C3 and C4. Internal Assessment of each course will consist of **C1** and **C2**. C1 and C2 will be taken together. 2/3 of the syllabus is to be completed during the 16th week of the course. Appearance in C1 and C2 is mandatory.

Total Marks: **75** (10+5+60), Credits: 6, Lecture Hours: 8 (per Week)

10 Marks for Internal Assessment (will be organized by College in general and Department in Particular) 10 Marks will be evaluated through Class Test or Assignment or Seminar. Marks division of Class Test will be 10 or **5+5** or 2+2+2+2+2.

5 Marks for Attendance that is **C3**.

Attendance: 50% & above but below 60% - 2 Marks

Attendance: 60% & above but below 75% - 3 Marks

Attendance: 75% & above but below 90% - 4 Marks

Attendance: 90% & Above - 5 Marks

60 (40+20) Marks for Semester-end-Examination.

40 Marks (Theory) will be organized by University.

Syllabus: Whole

Duration: Two Hours

Question Pattern:

Answer 05 questions out of 08 carrying 02 marks each = $05 \times 02 = 10$ marks

Answer 02 questions out of 04 carrying 05 marks each = $02 \times 05 = 10$ marks

Answer 02 questions out of 04 carrying 10 marks each = $02 \times 10 = 20$ marks

20 Marks (Practical) will be organized by College.

Syllabus: Whole

Duration: Two Hours

Question Pattern/ Marks Division:

Laboratory Note Book: 05 Marks

Viva- voce: 05 Marks

Experiment: 10 Marks

A project File (Laboratory Note Book), comprising one exercise each is to be submitted.

Topic List

CC-10 (Theory)

Sl. No.	Topic	Name of Teacher(s)
1	Geographers' Approach to Environmental Studies	Indranil Mondal
2	Changes in Perception of Environment in different stages of Human Civilization	Indranil Mondal
3	Ecosystem: Concept, Structure and Functions	Biplob Sen
4	Environmental Degradation and Pollution: Water and Air	Biplob Sen
5	Environmental Issues related to Agriculture	Biplob Sen
6	Urban Environmental issues related to Waste Management	Niladri Das
7	Concept and Issues related to Bio-diversity	Niladri Das
8	Environmental Programs and Policies on Forest and Wetland: National and Global	Niladri Das

CC-10 (Practical)

Sl. No.	Topic	Name of Teacher(s)
1	Preparation of questionnaire for perception survey on environmental problems	Indranil Mondal
2	Environmental Impact Assessment: Leopold Matrix	Chandan Ghosh
3	Quality assessment of soil using field kit: pH and NPK	Chandan Ghosh
4	Interpretation of air quality using CPCB/WBPCB data	Chandan Ghosh

Skill Enhancement Course-2 (SEC-2) Advanced Spatial Statistical Techniques

Evaluation process is divided into four (4) components, viz. C1, C2, C3 and C4. Internal Assessment of each course will consist of **C1** and **C2**. C1 and C2 will be taken together. 2/3 of the syllabus is to be completed during the 16th week of the course. Appearance in C1 & C2 is mandatory.

Total Marks: **50** (10+40), Credits: 4, Lecture Hours: 4 (per Week)

10 Marks for Internal Assessment (will be organized by College in general and Department in Particular). 10 Marks will be evaluated through **Class Test** or Assignment or Seminar. Marks division of Class Test will be 10 or **5+5** or 2+2+2+2+2.

C3 is not applicable for SEC-1.

40 Marks for Semester-end-Examination (will be organized by College) that is **C4**.

Syllabus: Whole

Duration: Four Hours

Question Pattern:

Laboratory Note Book: 05 Marks

Viva- voce: 05 Marks

Experiment: 30 Marks

A project File (Laboratory Note Book), comprising one exercise each is to be submitted.

Topic List

Sl. No.	Topic	Name of Teacher(s)
1	Concept of Probability and Normal Distribution and their Geographical Applications, Skewness (Pearson's Method)	Niladri Das
2	Differences between Spatial and non-Spatial data, Nearest Neighbour Analysis	Niladri Das
3	Correlation and Regression Analysis, t-test, Spearman's Rank Correlation, Product Moment Correlation; Linear Regression	Rejaul Islam Sana
4	Time Series Analysis; Smoothing time series by Least Square and/or Moving Average Method	Rejaul Islam Sana

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B.A / B.Sc. (Honours) in Geography

Semester-VI

Hiralal Bhakat College, Nalhati

Core Course-13 (CC-13) Evolution of Geographical Thought

Evaluation process is divided into four (4) components, viz. C1, C2, C3 and C4. Internal Assessment of each course will consist of **C1** and **C2**. C1 and C2 will be taken together. 2/3 of the syllabus is to be completed during the 16th week of the course. Appearance in C1 & C2 is mandatory.

Total Marks: **75** (10+5+60), Credits: 6, Lecture Hours: 6 (per Week)

10 Marks for Internal Assessment (will be organized by College in general and Department in Particular). 10 Marks will be evaluated through Class Test or Assignment or Seminar. Marks division of Class Test will be 10 or **5+5** or 2+2+2+2+2.

5 Marks for Attendance that is **C3**.

Attendance: 50% & above but below 60% - 2 Marks

Attendance: 60% & above but below 75% - 3 Marks

Attendance: 75% & above but below 90% - 4 Marks

Attendance: 90% & Above - 5 Marks

60 Marks for Semester-end-Examination (will be organized by University) that is C4.

Syllabus: Whole

Duration: Three Hours

Question Pattern:

Answer 10 questions out of 15 carrying 02 marks each = 10 x 02 = 20 marks

Answer 04 questions out of 06 carrying 05 marks each = 04 x 05 = 20 marks

Answer 02 questions out of 04 carrying 10 marks each = 02 x 10 = 20 marks

Topic List

Unit-1

Sl. No.	Topic	Name of Teacher(s)
1	Definition, Scope and Content of Geography; Geography as a Spatial Science	Chandan Ghosh
2	Geography in Ancient Period: Greek and Roman	Rejaul Islam Sana
3	Development of Geography in Medieval period: Arabian	Chandan Ghosh
4	Development of Mapping and Knowledge about the World Regional Geography in the Age of Explorations	Niladri Das
5	Classical Geography in 19th Century: Humboldt, Ritter	Niladri Das
6	Quantitative Revolution and its Critique	Niladri Das

Unit-2

Sl. No.	Topic	Name of Teacher(s)
1	German School of Thought	Sajal Ghosh
2	French School of Thought	Sajal Ghosh
3	American School of Thought	Sajal Ghosh
4	Indian Contribution to Geography	Sajal Ghosh
5	Concept of Determinism, Possibilism and Neo-Determinism	Biplob Sen
6	Approaches to the study of Geography: Systematic and Regional	Biplob Sen

Core Course 14 (CC-14): Disaster Management

Evaluation process is divided into four (4) components, viz. C1, C2, C3 and C4. Internal Assessment of each course will consist of **C1** and **C2**. C1 and C2 will be taken together. 2/3 of the syllabus is to be completed during the 16th week of the course. Appearance in C1 and C2 is mandatory.

Total Marks: **75** (10+5+60), Credits: 6, Lecture Hours: 8 (per Week)

10 Marks for Internal Assessment (will be organized by College in general and Department in Particular) 10 Marks will be evaluated through Class Test or Assignment or Seminar. Marks division of Class Test will be 10 or **5+5** or 2+2+2+2+2.

5 Marks for Attendance that is **C3**.

Attendance: 50% & above but below 60% - 2 Marks

Attendance: 60% & above but below 75% - 3 Marks

Attendance: 75% & above but below 90% - 4 Marks

Attendance: 90% & Above - 5 Marks

60 (40+20) Marks for Semester-end-Examination.

40 Marks (Theory) will be organized by University.

Syllabus: Whole

Duration: Two Hours

Question Pattern:

Answer 05 questions out of 08 carrying 02 marks each = $05 \times 02 = 10$ marks

Answer 02 questions out of 04 carrying 05 marks each = $02 \times 05 = 10$ marks

Answer 02 questions out of 04 carrying 10 marks each = $02 \times 10 = 20$ marks

20 Marks (Practical) will be organized by College.

Syllabus: Whole

Duration: Two Hours

Question Pattern/ Marks Division:

Laboratory Note Book: 05 Marks

Viva- voce: 05 Marks

Experiment: 10 Marks

A project File (Laboratory Note Book), comprising one exercise each is to be submitted.

Topic List

CC-14 (Theory)

Unit-1

Sl. No.	Topic	Name of Teacher(s)
1	Classification of hazards and disasters	Sajal Ghosh
2	Approachestohazardstudy:Riskperceptionandvulnerabilityassessment.Hazardparadigms	Sajal Ghosh
3	Responsestohazards:Preparedness,traumaandaftermath. Resilienceand Capacity building	Niladri Das
4	Hazard's mapping: Data and techniques	Niladri Das

Unit-2

Sl. No.	Topic	Name of Teacher(s)
1	Earthquake: Factors, vulnerability, consequences and management	Biswajit Mondal
2	Landslide: Factors, vulnerability, consequences and management	Biswajit Mondal
3	Cyclone: Factors, vulnerability, consequences and management	Biplob Sen
4	Fire: Factors, vulnerability, consequences and management	Biplob Sen

CC-14 (Practical)

An individual Project Report based on any one among the following disasters incorporating preparedness, mitigation and management plan.

1. Earthquake
2. Landslide
3. Cyclone
4. Flood
5. Drought
6. River Bank Erosion
7. Mining Area Subsidence
8. Tsunami

Sl. No.	Topic	Name of Teacher(s)
1	Students will prepare a Project Report based on the topic mentioned by the Department;	Indranil Mondal/ Rejaul Islam Sana /Chandan Ghosh
2	The report should be typed in MS-Word in English	Indranil Mondal/

	language on A4 size paper in candidate's own words within 2000 words. The total number of pages in the Field Report should not exceed 20 pages including texts, figures, tables, photographs, maps, references(APA) and appendices	Rejaul Islam Sana /Chandan Ghosh
3	A copy of the bound report, duly signed by the concerned teacher, should be submitted	Indranil Mondal/ Rejaul Islam Sana /Chandan Ghosh
4	Preparation of maps with suitable scale and latitude and longitude	Indranil Mondal/ Rejaul Islam Sana /Chandan Ghosh

Discipline Specific Elective-3 (DSE-3): Resource Geography

Evaluation process is divided into four (4) components, viz. C1, C2, C3 and C4. Internal Assessment of each course will consist of **C1** and **C2**. C1 and C2 will be taken together. 2/3 of the syllabus is to be completed during the 16th week of the course. Appearance in **C1 & C2** is mandatory.

Total Marks: **75** (10+5+60), Credits: 6, Lecture Hours: 6 (per Week)

10 Marks for Internal Assessment (will be organized by College in general and Department in Particular). 10 Marks will be evaluated through Class Test or Assignment or Seminar. Marks division of Class Test will be 10 or **5+5** or 2+2+2+2+2.

5 Marks for Attendance that is **C3**.

Attendance: 50% & above but below 60% - 2 Marks

Attendance: 60% & above but below 75% - 3 Marks

Attendance: 75% & above but below 90% - 4 Marks

Attendance: 90% & Above - 5 Marks

60 Marks for Semester-end-Examination (will be organized by University) that is **C4**.

Syllabus: Whole

Duration: Three Hours

Question Pattern:

Answer 10 questions out of 15 carrying 02 marks each = 10 x 02 = 20 marks

Answer 04 questions out of 06 carrying 05 marks each = 04 x 05 = 20 marks

Answer 02 questions out of 04 carrying 10 marks each = 02 x 10 = 20 marks

Topic List

Unit-1

Sl. No.	Topic	Name of Teacher(s)
1	Resource Geography: Its Importance and relation with other sub-disciplines	Biswajit Mondal
2	Resource: Concept and Classification	Biswajit Mondal
3	Functional Theory of Resource	Biswajit Mondal

4	Problems of Resource Depletion with Special Reference to Forest, Water and Fossil Fuels	Biswajit Mondal
5	Resource Conservation: Principles and Methods	Sajal Ghosh
6	Concept of 'Limits to Growth'	Sajal Ghosh

Unit-2

Sl. No.	Topic	Name of Teacher(s)
1	Distribution and Utilisation of Metallic Mineral Resources in Indian Context: Iron ore, Bauxite	Biplob Sen
2	Distribution and Utilization of Non-Metallic Mineral Resources in Indian Context: Mica, Limestone	Biplob Sen
3	Distribution, Problems and Management of Energy Resources in Indian Context: Conventional (Coal) and Non-Conventional (Solar)	Rejaul Islam Sana
4	Power resources and problems with reference to Petroleum	Rejaul Islam Sana
5	Contemporary Energy Crisis and Future Scenario	Indranil Mondal
6	Sustainable Resource Development	Indranil Mondal

Discipline Specific Elective-4 (DSE-4): Soil and Bio-Geography

Evaluation process is divided into four (4) components, viz. C1, C2, C3 and C4. Internal Assessment of each course will consist of **C1** and **C2**. C1 and C2 will be taken together. 2/3 of the syllabus is to be completed during the 16th week of the course. Appearance in C1 & C2 is mandatory.

Total Marks: **75** (10+5+60), Credits: 6, Lecture Hours: 6 (per Week)

10 Marks for Internal Assessment (will be organized by College in general and Department in Particular). 10 Marks will be evaluated through Class Test or Assignment or Seminar. Marks division of Class Test will be 10 or **5+5** or 2+2+2+2+2.

5 Marks for Attendance that is **C3**.

Attendance: 50% & above but below 60% - 2 Marks

Attendance: 60% & above but below 75% - 3 Marks

Attendance: 75% & above but below 90% - 4 Marks

Attendance: 90% & Above - 5 Marks

60 Marks for Semester-end-Examination (will be organized by University) that is **C4**.

Syllabus: Whole

Duration: Three Hours

Question Pattern:

Answer 10 questions out of 15 carrying 02 marks each = 10 x 02 = 20 marks

Answer 04 questions out of 06 carrying 05 marks each = 04 x 05 = 20 marks

Answer 02 questions out of 04 carrying 10 marks each = 02 x 10 = 20 marks

Topic List

Unit-1: Soil Geography

Sl. No.	Topic	Name of Teacher(s)
1	Soil: Definition, Factors of Formation	Chandan Ghosh
2	Development and Characteristics of an ideal Soil Profile	Chandan Ghosh
3	Physical and Chemical Properties of Soil with special reference to Texture, Structure, Organic Carbon and pH	Chandan Ghosh
4	Concept of Zonal, Azonal and Intrazonal Soil; Formation and Profile Characteristics of Laterite and Podsol	Biswajit Mondal
5	Classification of Soil: Russian and Indian (ICAR)	Biswajit Mondal
6	Soil Degradation and Management	Biswajit Mondal

Unit-2: Bio-Geography

Sl. No.	Topic	Name of Teacher(s)
1	Definition and Scope of Bio-geography, Meaning of Biosphere, Ecology, Ecosystem, Environment, Communities, Habitats, Niche, Ecotone and Biotopes	Sajal Ghosh
2	Biosphere and Energy: Laws of Energy Exchange, Food Chain, Food Web and Energy Flow	Biswajit Mondal
3	Bio-GeoChemical Cycle: Carbon, Nitrogen	Rejaul Islam Sana
4	Factors of Plant Growth: Light, Heat, Moisture, Wind, Soil and Topography	Rejaul Islam Sana
5	Biomes Concept and Classification; Tropical Rainforest and Temperate Grassland	Niladri Das
6	Threat to Biodiversity-Causes, Consequences and Conservation	Niladri Das



Principal
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