

NEP Syllabus For Four-Year B.A. /B.Sc. (Hons.) in Geography (with Research)

Effective from 2024-2025 Academic Session

Department of Geography (Faculty of Sciences) Jamia Millia Islamia (A Central University) New Delhi- 110025, India

Semester-wise Modules of the Four-Years Bachelors Programme (B.A/B.Sc. Hons. with Research) of the Department of Geography, Jamia Millia Islamia, New Delhi

	1 Tear D.A./ D.SC. (Hons.) Programme										
Se m.	Major Core (DSC)	Minor Generic Elective (GE)	Multidisciplinary	Ability Enhance ment Compuls ory Course (AECC)	Skill Enhanceme nt Course (SEC)	Value Added Course (VAC)	Summer Internship	Research Project	Total Credits		
1	Geomorpholo gy (Credit 4) 24GEOC101 DSC 2 - Climatology & Oceanography (Credit 4) 24GEOC102	World Geography (Credit 4) 24GEOM101	Environmental issues and Management (Credit 3) 24GEOT101	General English (Credit 2)	Understanding Maps (Credit 3) 24GEOS101	Environmental Geography (Credit 2) 24GEOV101			22		
Ш	Human Geography (Credit 4) 24GEOC201 Geography of India (Credit 4) 24GEOC202	Population Geography (Credit 4) 24GEOM201	Environmental Policies and Challenges (Credit 3) 24GEOT201	General English (Credit 2)	Cartographic Techniques (Credit 3) 24GEOS201	Through SWAYAM Environmental Studies/Indian Knowledge System (Credit 2)			22		
	Geography	Bio-Geography (Credit 4) 24GEOM301	Social and Cultural Geography with special reference to India (Credit 3) 24GEOT301	Interpretation of socio- economic data (Credit 2)		Tourism Geography (Credit 2) 24GEOV301			19		

1st Year B.A./B.Sc. (Hons.) Programme

	Photogrammetry (Credit 4) 24GEOC401	Agricultural Geography (Credit 4) 24GEOM401	Acquisition of Spatial data (Credit 2)	Conservation and Management of Resources		
IV	Fundamentals of Remote Sensing (Credit 4) 24GEOC402			(Credit 2) 24GEOV401		16

Note:

- DSC= Discipline Specific Core,
- GE =Generic elective (It is a pool of courses meant to provide multidisciplinary or interdisciplinary education to students),
- DSE = Discipline Specific Elective
- *Summer Internship: If the student wishes to re-enter the degree programme, he/she will have to undertake summer internship (Credit 4)



Detailed Syllabus for 4-Year Undergraduate Course in Geography with Research (First Semester)

Course Name: Geomorphology Course Code: 24GEOC101 Total Marks: 100 **Course Type:** Core Course **Credits:** 4

GEOMORPHOLOGY

UNIT – I

Nature and Scope of Geomorphology; Geological Time Scale; Origin of the Continents and Oceans: Wegner's theory; Plate tectonics and Earth surface configuration; Interior of the Earth.

Unit - II

Major Landforms: Mountains, Plateaus, plains: their classification and distribution; Earth's Materials: Rocks-their origin, classification and characteristics.

Unit - III

Earth Movements: Endogenetic Processes: Epeirogenetic and Orogenetic - Folds and Faults; Earthquakes: Classification and world distribution; Volcanic activity: causes, types, distribution and resultant landforms.

Unit - IV

Geomorphic agents and processes: Exogenetic Processes, Denudational agents Weathering Process: Physical, Chemical and Biological; Fluvial, Aeolian, Karst, Coastal and Glacial landforms; Cycle of Erosion: Davis and Penck

- 1. Dayal, P., 2015: Text-Book of Geomorphology, Shukla Book Depot, Patna.
- 2. Gabler R.E, Peterson. J.F., Trapasso, L.M. 2009. Essentials of Physical Geography Brooks/ Cole Cengage Lerning.
- 3. Kale, V. and Gupta, A., 2004. Elements of Geomorphology. Oxford University press, Calcutta.
- 4. Strahaler, A.H., 2013 (6th edition). Introducing Physical Geography. Wiley Pub.
- 5. Thornbury, W.D., 1991. Principles of Geomorphology, Wiley Eastern Ltd., New Delhi
- 6. Worcester, P.C. 1969. Text Book of Geomorphology. East West Press, New Delhi.
- 7. Savindra Singh. Fundamental Concepts in Geomorphology. Prayag Pustak Bhavan, Allahabad.
- 8. Gautam, A. 2015. Geomorphology. Sharda Pustak Bhawan.
- 9. Hugget, R.J. 2011. Fundamentals of Geomorphology. Routledge Pub.
- **10.** Harvey, 2012. A. Introducing Geomorphology: A Guide to Landforms and Processes. Dunedin Academic Press.



Detailed Syllabus for 4-Year Undergraduate Course in Geography with Research (First Semester)

Course Name: Climatology and Oceanography Course Code: 24GEOC102 Total Marks: 100 Course Type: Core Course Credits: 4

CLIMATOLOGY AND OCEANOGRAPHY

Unit I Weather and Climate

Introduction to climatology, Weather and climate: elements and controlling factors; Atmosphere: Composition and Structure, Heat budget of the atmosphere and earth; Pressure belts; Winds: Planetary, Periodic and Local.

Unit II Atmospheric Circulations

Humidity, Evaporation and Condensation; Tropical and Temperate Cyclones, Anti-cyclones, Air Masses and Fronts; EL-NINO, La Nina and Southern Oscillation.

Unit III Introduction to Oceanography

Relief features of ocean basins; Submarine relief features of Atlantic, Pacific and Indian Oceans; Distribution of Temperature and Salinity; Ocean currents and Tides; Origin of coral reefs: types and coral bleaching

Unit IV Contemporary Trends in Climatology and Oceanography

Climate change, Global warming, Greenhouse gases, Adaptation to climate change, Sustainable marine resources management and Blue economy; Coastal hazard management; Application of remote sensing and GIS in Oceanography.

Books Recommended:

- 1. Barry, R.G. and Chorley R.J. 2009 (9th edition). Atmosphere Weather and climate, Routledge
- 2. Critchfield, J.H. 1983 (4th edition). General Climatology. Phi Learning Pub.
- 3. Das, P.K. 2011(3rd edition). The Monsoons. National Book Trust, New Delhi
- 4. Fein, J.S. and Stephens, P.N. 1987. Monsoon. John Wiley and Sons, New York
- 5. India Met. Deptt: Climatological Tables of observation in India
- 6. Lal, D.S. 2012. Climatology.ShardaPustakBhawan, Allahabad.
- 7. Lydolph.P.E. 1985. The Climate of the Earth. Roman & amp; Allanheld Pub.
- 8. Menon, P.A. 1989. Our Weather, National Book Trust, New Delhi.
- 9. Thompson, R.D. and Perry, A. 1997. Applied Climatology: Principles and Practice.Routledge.
- 10. Andrew D. Ward and Stanley Trimble 2004 (2nd edition). Environmental Hydrology,
- 11. Garg, S.K. 2005. Hydrology and Water Resource.Khanna Publishers, New Delhi.
- 12. Garrison Tom. 2012. Geography: An Invitation to Marrine Science. Brooks/Cole. New York
- 13. Garrison Tom. 2008. Essentials of Oceanography. Brooks/Cole. New York
- 14. Savindra Singh. 2013. Oceanography. PrayagPustakBhawan, Allahabad.
- 15. Singh, V.P., 1992. Elementary Hydrology.Prentice Hall Inc., Upper Saddle River,
- 16. Timothy, Davie, (2003), Fundamentals of Hydrology. Routledge, Taylor and Francis Group, U.K.
- 17. Hussain, T and Tahir, M. 2012. Oceanography. Jawahar Pub., New Delhi
- 18. Siddhartha, K. (2013). Oceanography: A Brief Introduction. Kisalaya Pub., New Delhi



Detailed Syllabus for 4-Year Undergraduate Course in Geography with Research (First Semester)

Course Name: World Geography Course Code: 24GEOM101 Total Marks: 100 **Course Type:** Minor Course **Credits:** 4

WORLD GEOGRAPHY

Unit - I: Geography of Asia

Southeast Asia: Physical and Human Overview: Population, Climate and Natural Vegetation, Mineral Resources, Colonial and Modern Economics.

Southwest Asia: Physical and Cultural Overview: Population, Climate and Natural Vegetation, Mineral Resources, Petroleum Economy.

China: Physical and Human Overview: Population, Climate and Natural Vegetation, Mineral Resources, Economy.

Unit - II: Europe

Geographical Location, Landforms, Climate, Resources, Environmental Modifications and Crisis.

History of Development; Population: Demographics, Religion, Languages, Level of Living, Distribution, Urbanization.

Unit - III: U.S. and Canada

Physical Geography, Resources for Industrial Growth, Demographic Characteristics, Population Mobility, Economic Growth and Restructuring.

Unit - IV: Sub-Saharan Africa

Sub-Saharan Africa: Main Regions; Physical and Cultural Diversity, Climate, Colonial Legacy.

- 1. English, Paul Ward and James, A. Miller: World Regional Geography: A Question of Place, John Wiley, New York, 1989.
- 2. Jackson, Richard H. and Lioyd, E. Hudman: World Regional Geography: Issues for Today, John Wiley, New York, 1991.
- 3. Don, R. Hoy (ed.): Essentials of Geography and Development, MacMillan, New York, 1980.
- 4. Hussain, M. 2008, World Geography, Rawat Publications, Jaipur.
- 5. Khan, N. and Hoda, M. (2008) A Text Book on General Geography of Asia, Kalyani Publisher, New Delhi.
- 6. Goh, C.L., Morgan G.C. (1982) Human and Economic Geography, Oxford University Press



Detailed Syllabus for 4-Year Undergraduate Course in Geography with Research (First Semester)

Course Name: Understanding Maps Course Code: 24GEOS101 Total Marks: 75 **Course Type:** Skill Enhancement Course **Credits:** 3

UNDERSTANDING MAPS

Unit - I: Scale and Maps

Scale: Concept, Definition and Significance; Types of the scale: Plain Scale, Comparative Scale, and Diagonal Scale. Concept and Definition of Maps; Historical Evolution of Maps; Elements of Map; Significance and Usage of Maps.

Unit - II: Types of Map

Classification of Maps on the Basis of Scale: Large Scale Maps: Cadastral Map, Topographical Map, Small Scale Maps: Wall Map, Atlas Map, On the Basis of Function: Physical Map: Relief map, Geological Map, Climate Map, Soil Map, Social and Cultural Maps: Population Map, Political Map, Economic Map, Transportation map.

Unit - III: Projections and Techniques

Definition, Properties and Usage: Cylindrical Projection, Conical projection, Zenithal Projection, Mercator Projection. Surveying: Meaning and concept; Role of Remote Sensing and GIS in Modern Map Making.

- 1. Monkhouse. F. J. and Wilkinson. H. R. 1972, Maps and Diagrams. Methuen, London
- 2. Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publisher
- 3. Sarkar S, 2015. Practical geography: A Systematic Approach, Orient Blackswan Pvt Ltd
- 4. Robinson A. H., 2009. Elements of Cartography, John Wiley and Sons, New York.
- 5. Khan Jabir, Hasan T & Shamshad, 2014, Scales, Academic Publications,
- 6. Misra, R. P. 1969. Fundamentals of Cartography, Prasaranga. University of Mysore, Mysore.



Detailed Syllabus for 4-Year Undergraduate Course in Geography with Research (First Semester)

Course Name: Environmental Geography

Course Code: 24GEOV101 Total Marks: 50 Course Type: Value Added Course Credits: 2

ENVIRONMENTAL GEOGRAPHY

Unit- I: Introduction to Environment

Concept, Definition, and Components; Human and Environment Interaction; Humanization of Nature and Naturalization of Human; Environmental disorders: Human Impact on Land, Climate and Natural vegetation.

Unit – II: Environmental Issues & Global Problems

Climate change, Global warming and Ozone depletion; Local and Regional Problems: Extreme hydrological events; Deforestation and Desertification; Pollution of air and water; Depletion of Freshwater resources and Degradation of Soils.

- 1. Adams, W.M.1995: Green development: Environmental sustainability in the Third World; London: Rout ledge.
- 2. Alexander, D. 1993: Natural Disasters, New Delhi: Research Press.
- 3. Allaby, M. 1996: Basics of Environmental science, London: Routledge.
- 4. Baarrshes, W.H. 1996: Eco-fiction: Understanding the Environmental Debate, London: Routledge.
- 5. Brayant, E.A.1991: Natural Hazards, Cambridge: Cambridge University press.
- 6. Canter, L. W.1996: Environmental Impact Assessment, 2nd edition, New York: McGraw hill.
- 7. Chapman, D. 1994: Natural Hazards, Melbourne: Oxford University Press.
- 8. Chapman J.L. and Reiss, M.J. 1993: Ecology: Principles and applications, Cambridge: 10. Cambridge; University Press.
- 9. Colls, J.1997: Air Pollution: An Introduction, London: Chapman and Hall.
- 10. Das, R.C. and Behera, B.K. 2008: Environmental Science: Principle and Practice, Prentice Hall of India Pvt. Ltd., Delhi

Detailed Syllabus for 4-Year Undergraduate Course in Geography with Research (First Semester)

Course Name: Environmental Issues and Management

Course Code: 24GEOT101 Total Marks: 75 **Course Type:** Multi-disciplinary **Credits:** 3

ENVIRONMENTAL ISSUES AND MANAGEMENT

Unit I-Introduction to Environment

Definition, meaning and components; Human and Environment Interaction; Humanization of Nature and Naturalization of Human; Environmental disorders: Human Impact on Land, Climate and Natural vegetation.

Unit-II Environmental Issues Global Problems

Climate change, Global warming and Ozone depletion; Local and Regional Problems: Extreme hydrological events; Deforestation and Desertification; Pollution of air and water; Depletion of Freshwater resources and Degradation of Soils.

Unit - III: Environmental Strategies

Uncertainty in managing environmental problems, Sustainable environmental development; Preservation and conservation; Integrated management and community participation in management.

Books Recommended:

- 1. Adams, W.M.1995: Green development: Environmental sustainability in the Third World; London: Rout ledge.
- 2. Alexander, D. 1993: Natural Disasters, New Delhi: Research Press.
- 3. Allaby, M. 1996: Basics of Environmental science, London: Routledge.
- 4. Baarrshes, W.H. 1996: Eco-fiction: Understanding the Environmental Debate, London: Routledge.
- 5. Brayant, E.A.1991: Natural Hazards, Cambridge: Cambridge University press.
- 6. Canter, L. W.1996: Environmental Impact Assessment, 2nd edition, New York: McGraw hill.
- 7. Chapman, D. 1994: Natural Hazards, Melbourne: Oxford University Press.
- 8. Chapman J.L. and Reiss, M.J. 1993: Ecology: Principles and applications, Cambridge: 10. Cambridge; University Press.
- 9. Colls, J,1997: Air Pollution: An Introduction, London: Chapman and Hall.
- 10. Das, R.C. and Behera, B.K. 2008: Environmental Science: Principle and Practice, Prentice Hall of India Pvt. Ltd., Delhi



Detailed Syllabus for 4-Year Undergraduate Course in Geography with Research (Second Semester)

Course Name: Human Geography Course Code: 24GEOC201 Total Marks: 100 **Course Type:** Core Course **Credits:** 4

HUMAN GEOGRAPHY

Unit - I: Introduction to Human Geography

Definition, nature and scope of human Geography; Branches of human Geography; Dichotomy of physical and human geography; Concepts of man and environment relationship; Environmental Determinism and Possiblism.

Unit - II: Patterns of Population Distribution

Growth and distribution of population in the world; Age-sex structure; Theories of Population growth: Malthus, Demographic transition; Migration: Recent theories, Causes and consequences; Human Development Index.

Unit - III: Human Settlements

Settlement: Size, situation and classification; Origin and evolution of rural settlements; Types and patterns of rural settlement; Origin and growth of urban settlements; Process and pattern of urbanization, classification of cities based on site, size and functions.

Unit - IV: Human Adaptation to Environment

Evolution of man; Man in ecosystem; Ecological adaptation; Human adaptation in equatorial, monsoon, tundra and hot desert; Habitat, Economy and Society of Bakarwals, Tharus, Naga and Bhills.

- 1. Ahmad, Q.S. (1963): Major Natural Regions, S. Chand Publisher, Delhi.
- 2. AmitHarichandran, M.A. Chaudhry (2010): Global Vision Publication House, New Delhi-11002.
- 3. Kaushik, S.D. (1970): ManavBhoogol, Rastogi& Co., Meerut.
- 4. Hoyt, J.B. (1973): Man and the Earth, Prentice Hall, New Jersey.
- 5. Husain, Majid (2010): Human Geography, Rawat Publication, Jaipur.
- 6. Husain, Majid (2010): ManavBhoogol, Rawat Publication, Jaipur.
- 7. Leong, G. C.(1995): Certificate Physical and Human Geography, Oxford Publication.



DEPARTMENT OF GEOGRAPHY

JAMIA MILLIA ISLAMIA

Detailed Syllabus for 4-Year Undergraduate Course in Geography with Research (Second Semester)

Course Name: Geography of India **Course Code:** 24GEOC202 **Total Marks:** 100 **Course Type:** Core Course **Credits:** 4

GEOGRAPHY OF INDIA

Unit - I

India as a Geographical Unit; Region: Concept, definition and types; Scheme of Regionalization: O.H.K. Spate and R.L. Singh; Concept of planning region, Watershed as a Planning Region.

Unit - II

Geology and Structure; Physical Divisions of India; Drainage; Climate; Climatic Regions; Soil; Natural Vegetation, Agro-climatic Regions.

Unit – III

Population Growth, Distribution and its factors; Population Composition: Sex ratio, Rural and Urban breakup, Literacy, Work force, Language, Religion, Caste, Old-age population.

Unit - IV

Agricultural: Food crops, Cash crops, Green Revolution, Agriculture through Five-Year Plans; Agricultural Regionalization, Minerals: Production and Distribution of Metallic resources; Energy resources: Conventional and Non-Conventional; Industries: Mineral based and Agro-based; Industrial Regions, Industrial Policy, SEZ, Transport and Communication.

- 1. Deshpande C.D: Indian-A Regional Interpretation, Northern Book centre, New Delhi.1992.
- 2. Chauhan.T., 1997: Geography of Rajasthan, Vigyan Prakashan Jodhpur.
- 3. Farmer. B.H. An Introduction to South Asia, Methuen, London, 1983.
- 4. Govt. of India-Reference Annual, 2001 Pub.div; New Delhi.
- 5. Govt. Of India: National Atlas of India Natmo Publication, Calcutta.
- 6. Hussain.M. 2009, Geography of India, Tata Mc Graw-Hill companies Book.
- 7. Kalpana Raja Ram, 2007, Geography of India, Spectrum Books, New Delhi 110058.



- 8. Govt.Of India: The Gazetteer of India. Vol. I & III Publication division.
- 9. Learmonth A.T.A et.al (ed) Man and land of South Asia, Concept
- 10. Mitra, A: levels of Regional development of India, Census of India, Vol.I, Part I-A (i) and (ii) New Delhi, 1967.
- 11. Routray, J.K.: Geography of Regional Disparity, Asian Institute of Technology, Bankok, 1993.
- 12. Sdhekhar.S.(edt.)2004, Regional Planning in India, Anmol Publications, New Delhi-2
- 13. Shafi, M: Geography of South Asia, McMillan & Co; Calcutta, 2000.



Detailed Syllabus for 4-Year Undergraduate Course in Geography with Research (Second Semester)

Course Name: Population Geography **Course Code: 24GEOM201 Total Marks:** 100 **Course Type:** Minor Course **Credits:** 4

POPULATION GEOGRAPHY

Unit-I: Introduction to Population Geography

Subject matter and scope of Population geography, Demography and population Geography; Sources of Population Data: Census, Vital Statistics and National Sample Survey, National Family Health Survey; Approaches in population Geography.

Unit-II: Population Growth and Distribution

Population Growth and change: Trends of Population Growth in the World; World Pattern of population distribution; factors affecting population distribution; Population Dynamics: Fertility, Mortality and Migration, Theories of Population growth: Malthusian theory, Theory of Demographic Transition;

Unit-III: Population Composition

Age and Sex Composition; Rural and Urban Composition; Economic Composition Literacy and Education; Religion/Caste/ Race etc.

Unit-IV: Population Problems and Policies-India

Sex Ratio Imbalance; Gender issues: Ageing, crime against Women, Human Trafficking, Child Abuse; HIV/AIDS; Population Policy of India.

- 1. Barret, H.R. (1995): Population Geography, Oliver and Boyd.
- 2. Bhende, A. and Kanitkar T.(2000): Principles of Population Studies, Himalaya Publishing house.
- 3. Bogue, Donald, J. (1969): Principles of Demography, John Wiley and Sons, New York.
- 4. Chandana, R.C. (1986): A Geography of Population: Concepts, Determination and pattern, Kalyani publisher, New Delhi.
- 5. Chandana,R.C.(2008): Geography of Population: Concepts, Determinants and Patterns,7th Edition, Kalyani Publishers, New Delhi.
- 6. Clarke, J.I. (1965): Population Geography, Pergamon press Ltd; Oxford.
- 7. Clarke, J.I. (1972): Population Geography, Second Edition, Pergamon Press Ltd; Oxford.
- 8. Clarke, J.I. (Ed.) (1984): Geography and Population: Approaches, Pergamon Press Ltd; Oxford.



- 9. Demco, G.J; Rose, H.M.Schnell, G.A. (1970): Population Geography, McGraw Hill Book Co; New York.
- 10. Jones, H.R.(1990): Population Geography, Sage.
- 11. Jones, H.R. (2000): Population Geography, 3rd Edition, Paul Chapman, London.
- 12. Peters,G.L. and Larkin R.P (1979): population Georaphy-Problems,Concepts and Prospects, Kendall Hunt Publication Co.
- 13. Swain, A.K.P.C. (2008): A Text Book of Population Studies, Kalyani Publishers, New Delhi.
- 14. Trewartha, G.T. (1969). A Geography of Population: World Patterns, John Wiley and Sons, New york.
- 15. weeksJohn R.2005: Population: An Introduction to Concepts and Issues.9th Edition, Belmont, C.A.: Wadsworth Publication.
- 16. Wilson, M.G.A. (1968): Population Geography, Thomas Nelson, London.
- 17. Mahendra K. Premi(2001) Population of India, In the New Millennium: Census, National book trust.New Delhi.
- 18. Mahendra K. Premi, Dipendra Nath Das (2011) Population of India, B.R. Publishing Corporation, Delhi.



Detailed Syllabus for 4-Year Undergraduate Course in Geography with Research (Second Semester)

Course Name: Cartographic Techniques **Course Code:** 24GEOS201 Total Marks: 75 **Course Type:** Skill Enhancement Course **Credits:** 3

CARTOGRAPHIC TECHNIQUES

Unit - I: Fundamentals of Cartography

Definition and Scope of Cartography; Diagram: Bars- Simple, multiple and compound; Wheel Diagram-simple, compound and proportional circle

Unit II : Representation of Relief and Drainage

Methods of depiction of relief : hachures, hill shading, contours, and layer tinting; Contours and their profiles for slopes, valleys, waterfall, spur, knoll, saddle, escarpment, dissected plateau and overhanging cliff; Determination of slope, gradient, intervisibility and dead grounds; Stream order, Drainage density, Drainage texture, Drainage basin. Interpretation of topographic sheets of hilly, plateau and plain regions.

Unit III: Representation of Climatic Data

Representation of climatic data using line and bar graphs, isotherms, isobars and isohyets; Climographs and hythergraphs; Windroses Interpretation of Weather Charts of India for January and July.

Books Recommended:

1. Monkhouse. F. J. and Wilkinson. H. R. 1972: Maps and Diagrams. Methuen, London

2. Robinson A. H., 2009: Elements of Cartography, John Wiley and Sons, New York.

3. Khan Jabir, Hasan T & Shamshad, Scales, Academic Publications, 2014

4. Misra, R. P. 1969. Fundamentals of Cartography, Prasaranga. University of Mysore, Mysore.

5. Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publisher



Detailed Syllabus for 4-Year Undergraduate Course in Geography with Research (Second Semester)

Course Name: Environmental Policies and Challenges

Course Type: Multi-disciplinary

Credits: 3

Course Code: 24GEOT201 Total Marks: 75

ENVIRONMENTAL POLICIES AND CHALLENGES

Unit I-Fundamental Concepts of Environmental Studies

Basic Concepts of Environment: Lithosphere, Hydrosphere, Atmosphere; Concepts of Ecology: Meaning, Definitions and Scope of Ecology, Energy flow in the ecosystem; Food Chain and Food Web, Species Niche, Ecological Succession.

Unit-II Environmental Degradation

Meaning and Concept, Types and Processes of Environmental Degradation, Causes of Environmental Degradation, Agricultural Development and Environmental Degradation, Population Growth and Environmental Degradation, Industrial Development and Environmental Degradation, Urbanization and Environmental Degradation.

Unit - III: Environmental Laws

Environmental Laws: Global Laws and Laws in India, The Water (Prevention and Control Pollution) Act, The Air (Prevention and Control Pollution) Act, The Wildlife Protection Act, The Public Liability Insurance Act, The National Environment Tribunal Act, The Environment Protection Rules.

Books Recommended:

1. Adams, W.M.1995: Green development: Environmental sustainability in the Third World; London: Rout ledge. 2. Alexander, D. 1993: Natural Disasters, New Delhi: Research Press.

- 3. Allaby, M. 1996: Basics of Environmental science, London: Routledge.
- 4. Baarrshes, W.H. 1996: Eco-fiction: Understanding the Environmental Debate, London: Routledge.
- 5. Brayant, E.A.1991: Natural Hazards, Cambridge: Cambridge University press.
- 6. Canter, L. W.1996: Environmental Impact Assessment, 2nd edition, New York: McGraw hill.
- 7. Chapman, D. 1994: Natural Hazards, Melbourne: Oxford University Press.
- 8. Chapman J.L. and Reiss, M.J. 1993: Ecology: Principles and applications, Cambridge: 10. Cambridge; University Press.
- 9. Colls, J,1997: Air Pollution: An Introduction, London: Chapman and Hall.
- 10. Das, R.C. and Behera, B.K. 2008: Environmental Science: Principle and Practice, Prentice Hall of India Pvt. Ltd., Delhi