



DEPARTMENT OF GEOGRAPHY
RABINDRANATH TAGORE UNIVERSITY
SYLLABUS AS PER NEP 2020
FOUR YEAR UNDERGRADUATE PROGRAM
SUBJECT: GEOGRAPHY (Major)
PAPER CODE: MAJ-GGY-3.1
PAPER NAME: CLIMATOLOGY

Distribution of Marks: 60 (Theory) +20 (Practical) + 20(Sessional)
Total credit=4 Credit

(The main objective of this paper is to make the students aware of the composition of atmosphere and various climatic processes. The students will also learn about various factors responsible for the climatic disturbances.)

The specific learning outcome of the course are –

1. Understanding the basic concept of climate and weather, their phenomenon and parameter
2. Relate the phenomena of weather and climate in different spatial contexts
- 3 Identify, and related certain critical phenomena occurred and discussed in contemporary times revealing the applied dimensions.

Unit 1: Atmosphere (2 classes)
: Structure and composition of atmosphere.

Unit 2: Heat and Temperature (8 classes)
: Insolation, heat budget, vertical and horizontal distribution of temperature.

Unit 3: Pressure and Winds (12 classes)
: Atmospheric Pressure, Measurement of air pressure and wind, Distribution of pressure, Factors affecting pressure, Pressure belts; Atmospheric Circulation, Factors controlling winds, Types of winds, Planetary wind system, Instruments for wind direction, speed and strength, Jet Streams, Monsoon wind and its characteristics.

Unit 4: Humidity and Precipitation (6 classes)
: Measurement of Atmospheric moisture, Types of Humidity, Factors affecting rate of evaporation and distribution, Evapotranspiration, Form of condensation, Types of clouds, stability and instability of air.

Unit 5: Air Masses and Fronts (6 classes)
: Classification of Air Masses and Modifications. Fronts and their types. Cyclones and anticyclones: Types of Cyclones, Temperate and Tropical Cyclones.



Unit 6: World Climate

: Regions: Classification of climate of the World, Koeppen's Climate Classification.

(4 classes)

Unit 7: Climate change and extreme climatic events.

(2 classes)

Practical:

(10 classes)

Graphs/ diagrams representing climatic data.

1. Weather map interpretation,
2. Rainfall dispersion graphs,
3. Climographs (Taylor),
4. Hythergraph
5. Star/Wind rose diagram
6. Preparation and interpretation of maps showing the trend of onset and withdrawal/ retreat of Monsoon in India/northeast India.

Reading List

1. Barry R. G. and Carleton A. M., 2001: Synoptic and Dynamic Climatology. Routledge, UK.
2. Barry R. G. and Corley R. J., 1998: Atmosphere, Weather and Climate, Routledge. New York.
3. Critchfield H. J., 1987: General Climatology, Prentice-Hall of India. New Delhi.
4. Lutgens F. K., Tarbuck E. J. and Tasa D., 2009. The Atmosphere: An Introduction to Meteorology, Prentice-Hall, Englewood Cliffs, New Jersey.
5. Oliver I. E. and Hidore J. J., 2002: Climatology Education, New Delhi. : An Atmospheric Science, Pearson.
6. Trewartha G. T. and Horne L. H., 1980: An Introduction to Climate, McGraw-Hill.
7. Gupta L. S. (2000): Jalvayu Vigyan, Hindi Madhyam Karyanvay Nidishalya, Delhi Vishwa Vidhyalaya, Delhi Lal. DS (2006): Jalvayu Vigyan, Prayag Pustak Bhavan, Allahabad.
9. Vatal, M (1986): Bhautik Bhugol, Central Book Depot, Allahabad.
10. Singh, S (2009): Jalvayu Vigyan, Prayag Pustak Bhawan, Allahabad.



Reading List:

1. Bhattacharya, P (2011) Tourism in Assam: Trend and Potentialities, Banimandira Guwahati.
2. Dhar, P.N. (2006) International Tourism Emerging Challenges and Future Prospects Kanishka, New Delhi.
3. Hall, M and Stephen. P (2006) Geography of Tourism and Recreation - Environment. Place and Space, Routledge, London.
4. Kamra, K. K and Chand, M (2007) Basics of Tourism Theory, Operation and Practise. Kanishka Publishers, Pune.
5. Page, S. J. (2011) Tourism Management An Introduction, Butterworth-Heinemann-USA Chapter 2.
6. Raj, R. and Nigel, D (2007) Morpeth Religious Tourism and Pilgrimage Festivals Management: An International perspective by, CABI, Cambridge, USA, www.cabi.org.
7. Tourism Recreation and Research Journal, Center for Tourism Research and Development, Lucknow.
8. Singh Jagbir (2014) "Eco-Tourism" Published by - IK International Pvt. Ltd S-25. Green Park Extension, Uphaar Cinema Market. New Delhi, India (www.ikbooks.com).
9. Market Research Division, Dept. of Tourism, Govt. of India, India Tourist Statistics (available in PDF form), New Delhi.
10. UNWTO Tourism Barometer (available in their web portal to have a fresh glimpse of global tourism statistics/ other relevant sites may also be consulted).



DEPARTMENT OF GEOGRAPHY
RABINDRANATH TAGORE UNIVERSITY

Syllabus AS Per NEP 2020

Subject:-Geography (General)

Course Name: Geography of India with Reference N.E. India

Paper Code MIN-GGY-3.1

Total Credit: 6 (4+2)

Total Marks 100

(Theory: 60, Practical 20 and Internal Assessment 20)

Course objectives

- This is a core paper of regular course students which intends to introduce them to India as a geographical entity
- It seeks to develop new insights among students on significant geographical dimensions of the country along with its north-eastern part
- A field study is incorporated to make the students understand regional diversity of India with respect to its land, people and economy

Course outcome

- The paper will be useful for students in developing understanding on Indian geography and its various dimensions
- It will also be useful for students preparing for various competitive examinations including civil services.

Part 1: Theory

Credit: 4 (60 Marks)

(40 classes of 1 hour duration each)

1. India's location and its significance, administrative divisions (2 classes)
2. Physical setting: Major Physiographic Regions and their Characteristics, Drainage System (Himalayan and Peninsular). (5 classes)
3. Climate Seasonal Weather Characteristics, Climatic Divisions, Indian Monsoon (mechanism and characteristics) (5 classes)
4. Population Growth and distribution, Characteristics and Composition of population rural-urban, age, sex, occupational, literacy and religious), Population Policies of India. (4 classes)
5. Agriculture Environmental, Technological and Institutional Factors affecting Indian Agriculture, Distribution and Production of Rice, Wheat and Tea, Agro Climatic Zones, Food Security.



(4 classes)

6. Distribution and characteristics/potential of Natural Resources Soil, Vegetation, Water, Mineral Resources (Coal, Petroleum and Iron ore)

(4 classes)

7. Factors influencing Industrial development in the country, Industrial Regions and their

characteristics, Industrial Policies in India, Distribution and production patterns of iron and steel and cotton textile.

(4classes)

8. North-East India Land of seven sisters and its locational significance, physiographic framework, forest cover, agricultural practices including shifting cultivation, industrial development scenario, population growth pattern

(8 classes)

Part 11: Practical

Credit: 2 (20 Marks)

(20 classes of 2 hour duration each)

Unit 1: Practical works (10 marks)

(2 Questions of 5 marks each)

1. Trend of population growth and growth rates in India and N.E. India/Assam since 1901 using Census of India data (Source censusindia.gov.in)
(2 assignments)
2. Choropleth mapping to show spatial variation in decennial population growth rate in India /NE India/Assam
(1 assignment)
3. Spatial variation in the patterns of religious composition of population in India and Social composition of population (SC, ST and General) in N.E. India using pie-graph
(2 assignments)
4. Trend of food grains production (rice, wheat, maize, barley, jowar and bajra) in India since 1950-51 using band-graph
(1 assignment)
5. Map showing distribution of major tribal groups in North-East India
(1 assignment)



Unit 2: Field Report (6 Marks)

6 Preparation of field report based on field study through observational knowledge about the geographical personality of any part of India/N E India/Assam under the guidance of teacher(s) (Evaluation of the Content of Field Report, 4 Marks. Viva-voce on Field Report 2 Marks)

Unit 3: Practical Note-Book and Viva-Voce (4) Marks)

7. Evaluation of Practical Note-book (2 Marks)

8. Viva-voce on Practical Works (2 Marks)

Reading List:

1. Deshpande C. D., 1992. India: A Regional Interpretation, ICSSR, New Delhi.
2. Johnson, B. L. C., ed. 2001. Geographical Dictionary of India Vision Books, New Delh
3. Mandal R. B. (ed.), 1990: Patterns of Regional Geography - An Intenational Perspectiv Vol. 3-Indian Perspective.
4. Sdyasuk Galina and P Sengupta (1967). Economic Regionalisation of India, Census of India
5. Sharma, T. C. 2003: India - Economic and Commercial Geography. Vikas Publ., New Delhi
6. Singh R. L., 1971: India: A Regional Geography, National Geographical Society of India
7. Singh, Jagdish 2003: India - A Comprehensive & Systematic Geography, Gyanodaya Prakashan, Gorakhpur
8. Spate O. H. K. and Learmonth A. T. A., 1967: India and Pakistan: A General and Regional Geography, Methuen.
9. Tirtha, Ranjit 2002: Geography of India, RawatPubls., Jaipur & New Delhi.
10. Pathak, C. R. 2003: Spatial Structure and Processes of Development in India. Regional Science Assoc., Kolkata.
11. Tiwari, R.C. (2007) Geography of India. Prayag Pustak Bhawan, Allahabad
12. Sharma, TC. (2013) Economic Geography of India. Rawat Publication, Jaipur
13. Bhagabati, A.K., Bora, A. K. and Kar, B.K. Geography of Assam, Rajesh Publication New Delhi



14. Taher, M and Ahmed, P.: Geography of North East India, Mani ManikPrakash, Guwahati.
15. Das, M..M.. Peasant Agriculture in Assam, EBH_India Publishers, Guwahati
16. Gopal Krishnan, R Geography of North East India
17. Bhattacharya, P.2006: Trend in Tourism Potentiality, BaniMandir, Guwahati
18. Bhagabati, A.K. (ed): Biodiversity of Assam. Eastern Book House, Guwahati
19. Bhattacharyya, N.N. North East India, Rajesh Publication, New Delhi.
20. Srivastava, S C., Demographic Profile of N.E. India, Mittal Publications, New Delhi



DEPARTMENT OF GEOGRAPHY
RABINDRANATH TAGORE UNIVERSITY

Syllabus AS Per NEP 2020

Subject:-Geography (SEC)

Course Name: Geography of Tourism

Paper Code: SEC-GGY- 3.1

Total Credit: 3 (2+1)

Total Marks: 75

(Theory: 50, Practical 25 and Internal Assessment 0)

Course Objectives:

This paper introduces the students to the field of tourism from the lens of geography and its specificities. It seeks to develop new insights among students on how tourism and allied activities are shaped by geography of an area and also how such activities are responsible in shaping economic, social and environmental context from globe to local levels

Course Outcomes:

- The paper will be useful for students in developing ideas on how geographical factors tangent on tourism activities and how geographers seek to address issues of development and carrying capacities of varied environments
- It will also build skills for students seeking to enroll in a research programme and/or provide openings for them to work with tourism/eco-tourism planning agencies

Part 1: Theory

Credit. 2 (50 Marks)

(20 classes of 1 hour duration each)

1. Geography of Tourism Nature and scope, Concepts and issues of tourism. Recreation and leisure inter-relations, Robinson's geographical parameters of tourism (3classes)
2. Factors and types of tourism. Nature tourism, Cultural tourism, Medical tourism, Adventure tourism, Pilgrimage, etc. (4classes)
3. Recent Trends in tourism International and Domestic (India), Eco-Tourism, Sustainable Tourism (4classes)
4. Impact of tourism on economy, environment and society (4classes)



5. Tourism development in India Tourism infrastructures, Case studies of tourism development in Himalaya, Desert and North-East India with special reference to Assam, National tourism policies and prospects.

(5 classes)

Part 11: Practical
Credit: 1 (25 Marks)
(10 classes of 1 hour duration each)

Unit 1: Practical Works (20 Marks)

(To attempt 3 questions in total, 2 carrying 12 marks each and 1 carrying 8 marks)

1. Trend of growth of tourist arrivals in the world/India/Assam since 1960 using Moving average method and least squares method
(4 assignments).
2. Trend of tourist arrivals in the north-eastern states of India and few top ranking tourist arriving states of India since 1980 using Band-graph
(2 assignments)
3. Line Graph showing pattern of tourist arrival (Domestic and International) in relation to rainfall and temperature in a year for selected tourist spots of North-East India / Assam
(2 assignments)
4. Spatial Patterns of Seasonal variation (Spring, Summer, Autumn and Winter) in tourist arrival in capital cities of North-East Indian States using Pie diagram and Bar Diagram
(2 assignments)
5. Preparation of a transport connectivity (road, railway and air) map of Assam and North-East India for major tourist destinations
(1 assignment)
6. Preparation of a tourist map of North-East India showing locations of important national parks and wildlife sanctuaries from tourism potential perspectives (indicating the major highlights of the respective destinations including distance from Guwahati city within box)
(2 assignments)
7. Preparation of a tourist guide map of North-East India showing location of major tourist destinations and road connectivity routes from Guwahati city
(1 assignment)

Unit II: Practical Note-Book and Viva-voce (5 Marks)

1. Evaluation of Practical Note-Book (3 Marks)
2. Viva-voce (2 Marks)



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Total credit=4 Credit

Unit 1: Atmosphere

(2 classes)

: Structure and composition of atmosphere.

Unit 2: Heat and Temperature

(8 classes)

Insolation, heat budget, vertical and horizontal distribution of temperature.

Unit 3: Pressure and Winds

(12 classes)

: Atmospheric Pressure, Measurement of air pressure and wind, Distribution of pressure, Factors affecting pressure, Pressure belts; Atmospheric Circulation, Factors controlling winds, Types of winds, Planetary wind system, Instruments for wind direction, speed and strength, Jet Streams, Monsoon wind and its characteristics.

Unit 4: Humidity and Precipitation

(6 classes)

: Measurement of Atmospheric moisture, Types of Humidity, Factors affecting rate of evaporation and distribution, Evapotranspiration, Form of condensation, Types of clouds, stability and instability of air.

Unit 5: Air Masses and Fronts

(6 classes)

Classification of Air Masses and Modifications. Fronts and their types. Cyclones and anticyclones: Types of Cyclones, Temperate and Tropical Cyclones.

Unit 6: World Climate

Regions: Classification of climate of the World, Koeppen's Climate Classification.

(4 classes)



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FOUR YEAR UNDERGRADUATE PROGRAM

SUBJECT: GEOGRAPHY (Major)

PAPER CODE: MAJ-GGY-3.2

PAPER NAME: SOIL-BIOGEOGRAPHY AND OCEANOGRAPHY

Distribution of Marks: 60 (Theory) +20(Practical) +20(Sessional)

Total credit=4 Credit

This course introduces basic concepts and features associated with oceanography, soil and biogeography. Students shall get acquainted with the physical features and environment of the ocean, the movement and changes and outcome observed in the form of facilitation of economic activities as well as calamities.

The specific learning outcome are—

- 1 Understand the basic concepts and theories of Oceanography, biogeography and soil studies, landscape and spatial dimensions of all components at global level.
2. Learn the ecosystems evolved around the ocean and soil.
3. Ability to relate human perceptions including development of traditional knowledge based in all forms of ecological settings.
4. Identification of emerging problems if any in spatial context and need policy intervention.

Part 1 .SOIL-BIOGEOGRAPHY

30 marks

Unit 1.

(12 classes)

: Definition and scope of biogeography .

: Role of physical and biological factors and distribution of plants and animals, biomes and biodiversity hotspots of the world

:Bio-energy cycles and food-chain

:Concept of Biodiversity ; conservation of forest and wildlife

: Ecology and Ecosystem , Structure and functioning of the ecosystem



Unit 2: Factors and processes of soil formation , properties of soil ,soil profile , soil types and their distributions in India (8 classes)

Part 2 . OCEANOGRAPHY

30 marks
(20 classes)

Unit 1: Bottom relief features of the ocean .

Unit 2 : Submarine topography and configuration of Pacific , Atlantic and Indian Ocean floors .

Unit 3 : Ocean temperature and salinity, Currents,tides, tsunamis ,Ocean deposits, Coral reefs.

Part 3. PRACTICAL

20 marks
(10 classes)

Unit 1:

1. Mapping of protected areas (National park, biosphere reserve and wildlife sanctuary of Assam/N.E India.
2. Mapping of Biodiversity hotspots around the world.
3. Mapping of Soil types of Assam/N.E.India/India
- 4.Mapping the warm and the cold ocean currents of the Indian/Pacific/Atlantic ocean.

Unit 2:

- 1.Evaluation of Practical note book (2 marks)
- 2.Viva-voce (2 marks)

Reading list

- Anikouchine W.A and Stemberg R.W, 1973: *The World Ocean: An Introduction to oceanography*, Prentice-Hall
- Garrison T,1998 :*Oceanography*, Wordsworth Company,Belmont.
- Sharma R.C and Vatal M, 1980 *Oceanography for geographer*, Chaitanya publishing House, Allahabad.
- Bunting, B.T 1967:*The Geography of soil*, Hutchinson, London.
- Huggett, R,J, 1988 *Fundamental of Biogeography*, Routledge, London.
- Hussain,M(ed) 1994: *Biogeography(Part 1 &2)* Anmol Publications Pvt Ltd, New