# CHHATRAPATI SHAHU JI MAHARAJ UNIVERSITY
# KANPUR


**Four Year Undergraduate Programme (FYUP)**

## GEOGRAPHY

**Syllabus of**

**4 YEAR B.A. (HONOURS)**

**4 YEAR B.A. (HONOURS WITH RESEARCH)**

**AND**

**4+1 YEAR (B.A. HONOURS/ B.A. HONOURS WITH RESEARCH + M.A.) IN GEOGRAPHY**

## SESSION 2025-2026 ONWARDS

# BOS, GEOGRAPHY

## CSJM University, Kanpur-208024

## MINUTES OF MEETING

**Date:** 30th May 2025
**Time:** 01:00 PM
**Venue:** CSJM University, Kanpur
**Mode:** Offline/Online

All members of the Board of Studies (BOS) participated in the discussion on four-year BA / BA (Hons.)/ B A (Hons. With Research) and MA Geography program in the meeting, either through offline or online mode. The primary agenda of the meeting was to finalise the syllabus for the four-year BA / BA (Hons.)/ B A (Hons. With Research) and One Year MA Geography program, which is set to commence in the academic session 2025-26.

Following Members Participated in BOS:

| Sl No | Name and Affiliation | Convener/Member |
|---|---|---|
| 1. | Prof. Sadhna Rani<br>VSSD College, Kanpur | Convener |
| 2. | Prof. A R Siddiqui<br>Allahabad University, Prayagraj | External Expert |
| 3. | Prof. U K Shukla<br>BHU Banaras | External Expert |
| 4. | Prof. B W Pandey<br>Delhi University, Delhi | External Expert |
| 5. | Prof. Vinita Singh<br>Jwala Devi Vidyamandir PG College, Kanpur | Member |
| 6. | Dr. Rakesh Kumar Mishra<br>DBS College, Kanpur | Member |
| 7. | Prof. PP Rajput<br>Tilak MV, Auraiya | Member |
| 8. | Dr. Kashif Imdad<br>PPN PG College, Kanpur | Member |
| 9. | Dr. Prabhat Singh<br>BB College, Farukhabad | Member |
| 10. | Prof. S R S Yadav<br>KK College, Etawah | Member |
| 11. | Dr. Sangeeta Sirohi<br>DG College, Kanpur | Invited Member |

**Discussion and Decisions**

1. The proposed syllabus for the four-year BA / BA (Hons.)/ B A (Hons. With Research) and MA Geography program was circulated among all BOS members. An online presentation of the proposed syllabus was made from the convener's side. The members reviewed the syllabus and made necessary modifications.

2. The syllabus has been adapted from the existing NEP-based undergraduate and postgraduate syllabi of CSJM University, Kanpur. The BOS committee modified the syllabus according to the requirements of the NEP Four-Year Undergraduate Programme and One-Year MA Geography as per the guidelines provided by the university.

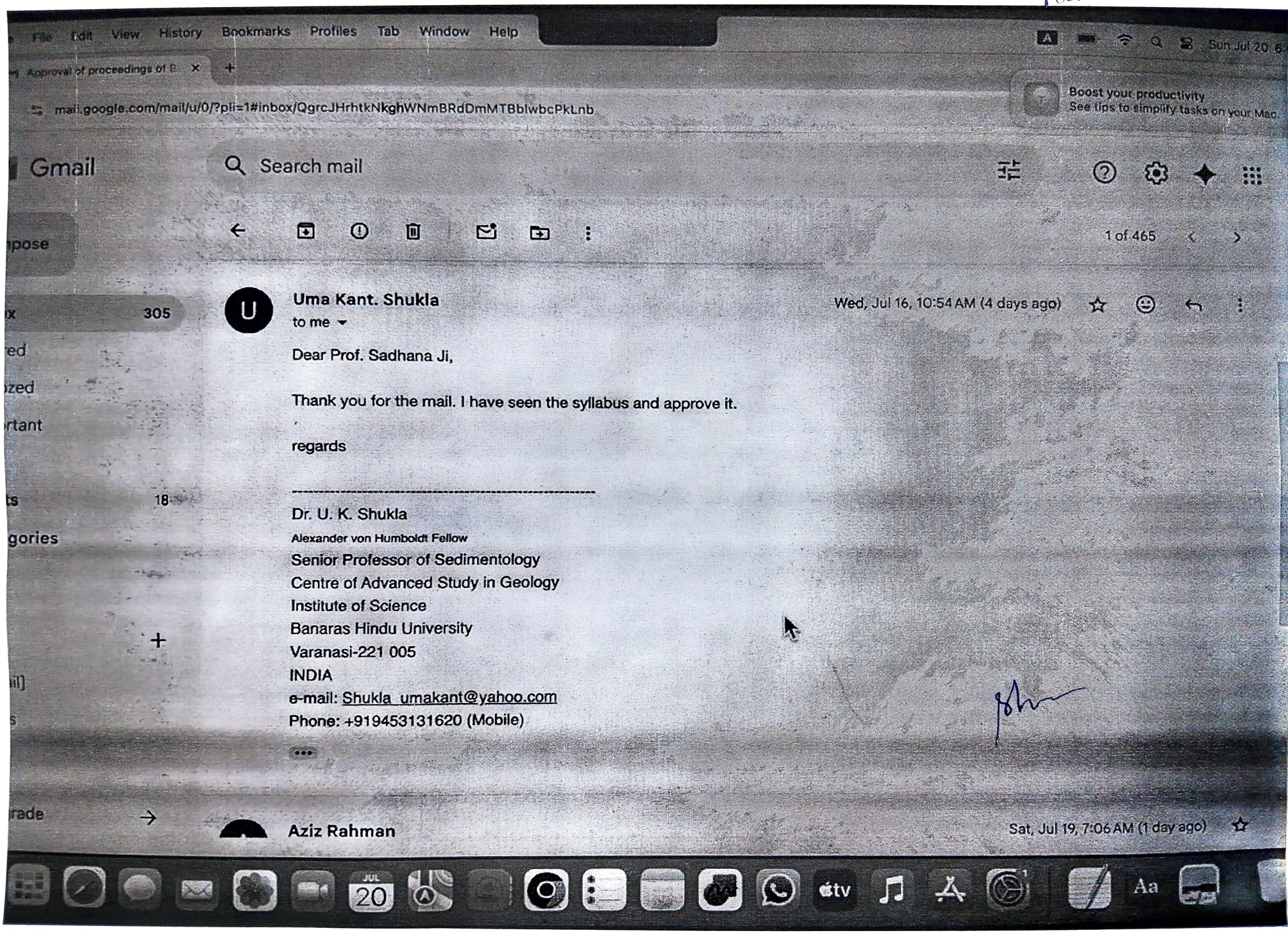
3. Research projects have been clearly integrated into the syllabus as per the guidelines issued by CSJM University for B.A. (Hons. With Research) and One-Year MA Geography.

4. Feedback and acceptance of the syllabus were sought from both external and internal experts via email.

**Prof. Sadhna Rani**
Convener- Geography
CSJM University, Kanpur

Prof. Sadhana Rani
Convener, Geography
C.S.J.M. University, Kanpur

External Expert



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**Uma Kant. Shukla**
to me

Wed, Jul 16, 10:54 AM (4 days ago)

Dear Prof. Sadhana Ji,

Thank you for the mail. I have seen the syllabus and approve it.

regards

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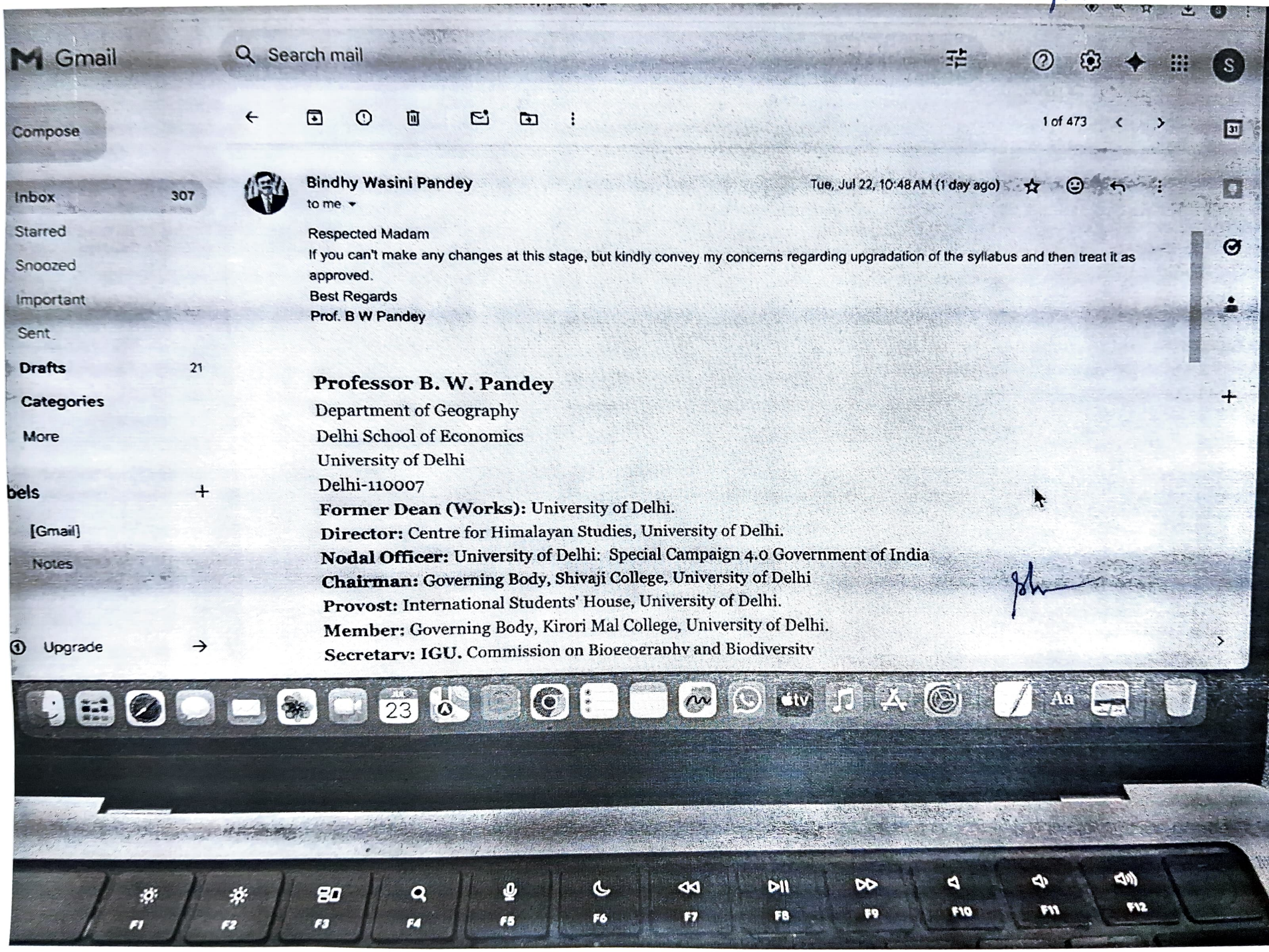
Dr. U. K. Shukla
Alexander von Humboldt Fellow
Senior Professor of Sedimentology
Centre of Advanced Study in Geology
Institute of Science
Banaras Hindu University
Varanasi-221 005
INDIA
e-mail: Shukla_umakant@yahoo.com
Phone: +919453131620 (Mobile)


**Aziz Rahman**

Sat, Jul 19, 7:06 AM (1 day ago)

External Expert



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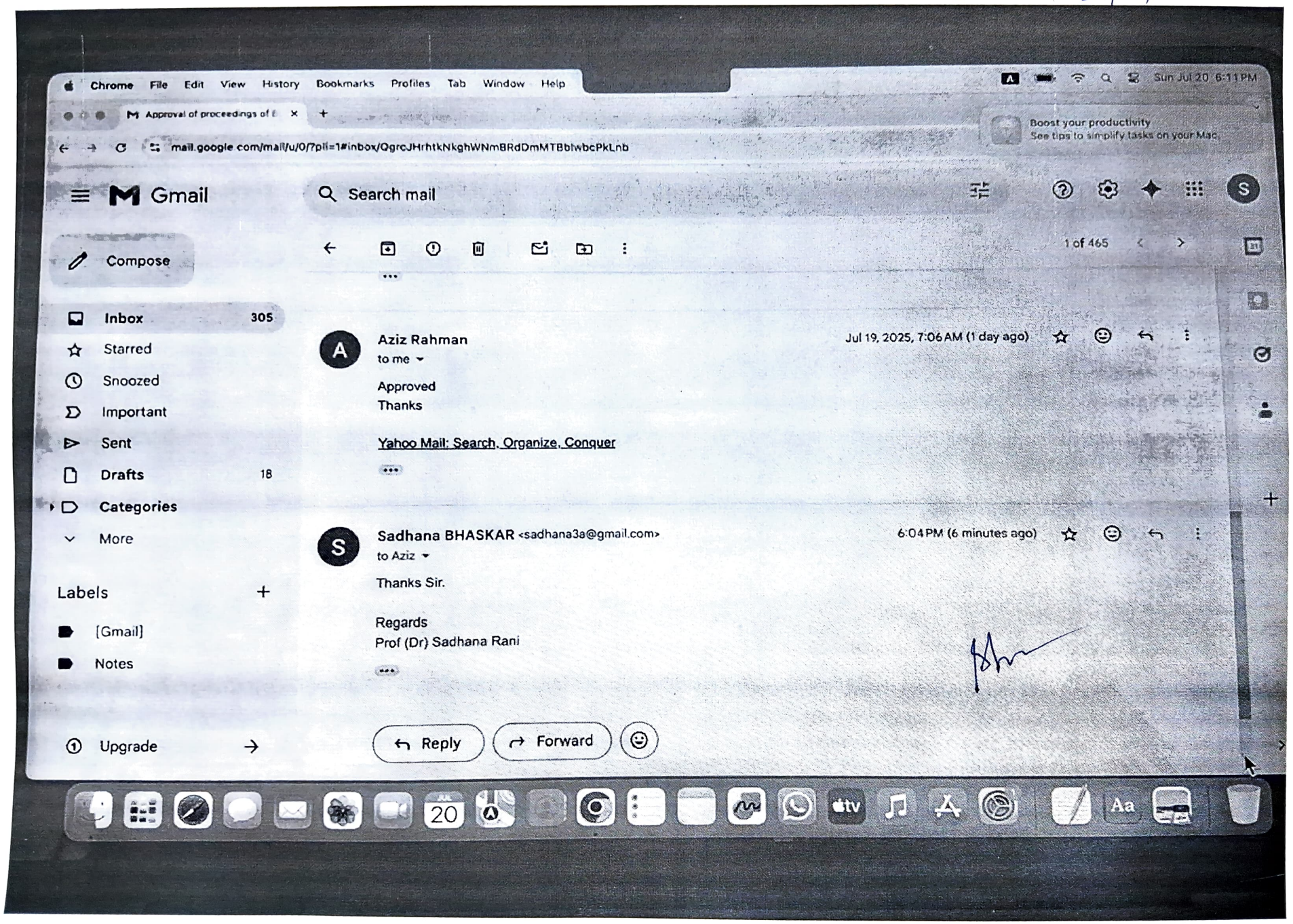

Approval of BA/ BA(Hons)/ Bi

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Upgrade

**Dr. Kashif Imdad**

to me

Jul 23, 2025, 12:57 PM (19 hours ago)

Respected ma'am,

Thank you for your email, syllabus is approved from my side.

Regards

Dr. Kashif Imdad
Associate Professor, Department of Geography
PPN (PG) College, CSJM University, Kanpur, India
Member, State Advisory Committee for Disaster Management
UPSDMA, Govt. of Uttar Pradesh
Member, Expert Panel for Smart City/Urban Transport
Govt. of Uttar Pradesh
Mob: 0091-9889379131
Email: kashifimdad@gmail.com
FB: kashif.imdad.3
Twitter: kashif_imdad

Dated: 21.07.2025

To

**Prof. Sadhana Rani**
Convener, Geography
CSJM University, Kanpur

**Subject : Approval for Geography UG Syllabus - 2025**

Dear Ma'am,

Thank you for sharing the revised syllabus and proceedings of the BOS-Geography meeting held on 30.05.2025.

I hereby grant my approval in anticipation for the proposed syllabus of BA/BA(Hons)/BA(Hons with Research)/MA Geography (Syllabus 2025) for onward submission to the University.

Best regards,

Sirohi
21/7/25

**Dr. Sangeeta Sirohi**
Associate Professor & Head
Deptt of Geography
Dayanand Girls PG College
Kanpur

tab=rm&ogbl#inbox/FMfcgzQbgRlzKqqnMwDWfDFStMLCjpdL

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# (no subject)

Inbox ×

**Praabhat Singh**

to me

Jul 22, 2025, 3:43 PM (19 hours ago)

Syllabus approved

Reply Forward

I have thoroughly reviewed the syllabus of B.A. and M.A. Geography subject prepared by the Board of Studies as per NEP 2020.

I gladly approve of the approval of this syllabus.

Prof. (Dr.) Prem Prakash Rajput,

Head, Department of Geography,

Tilak Mahavidyalay , Auraiya

## NEP Four-Year Undergraduate & One Year MA Geography Syllabus Committee

| Sl No | Name and Affiliation | Convener/Member |
|---|---|---|
| 1. | Prof. Sadhana Rani<br>VSSD College, Kanpur | Convener |
| 2. | Dr. Kashif Imdad<br>PPN PG College, Kanpur | Member |
| 3. | Prof. Vineeta Singh<br>Jwala Devi College, Kanpur | Member |
| 4. | Dr. Sangeeta Sirohi<br>DG College, Kanpur | Invited Member |
| 5. | Prof. PP Rajput<br>Tilak MV, Auraiya | Member |
| 6. | Dr. Rakesh Kumar Mishra<br>DBS College, Kanpur | Member |
| 7. | Dr. Prabhat Singh<br>BB College, Farukhabad | Member |
| 8. | Prof. S R S Yadav<br>KK College, Etawah | Member |

**Note:** The above syllabus has been adapted from the existing NEP-based undergraduate and postgraduate syllabi of CSJM University, Kanpur. The following committee modified the syllabus according to the requirements of the NEP Four-Year Undergraduate Programme and One Year MA Geography Syllabus.

Syllabus Approval

I approve herewith the syllabus of Geography BA/BA Hons/BA (Hons with research)/MA 2025, C.S.J.M. University Kanpur and I participated in the meeting held on 30th May 2025 as a member of Board of Studies, Geography Subject, C.S.J.M.U. Kanpur.

Prof. Vineeta Singh
Dept. of Geography
J.D.V.M. P.G. College, Kanpur.

National Education Policy-2020

# BA/BA(Hons.)/BA (Hons. with Research)/MA

Syllabus-2025

# CSJM University, Kanpur

# BA/BA(Hons.)/BA(Hons. with Research)/MA

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

### Program Outcome (After 4/5 Years of Study)

a) The program deepens understanding of geography's physical and human aspects, emphasizing contemporary methods and theoretical frameworks.

b) Students will engage with advanced geographical theories and methodologies, preparing them to address complex spatial and environmental issues critically.

c) This course enhances the development of advanced analytical and critical thinking skills, focusing on nuanced exploration of key themes and issues in Geography.

d) Graduates will be well-equipped to contribute to scholarly and policy debates, addressing the needs of the contemporary world through a sophisticated understanding of geographic development.

e) The program fosters a comprehensive mastery of core and emerging areas in Geography, encouraging ongoing engagement with evolving geographical paradigms.

f) Students will thoroughly know the applied aspects of Geography, gaining expertise in related interdisciplinary fields crucial for addressing real-world challenges.

g) The course enhances critical thinking and advanced research skills, preparing students for academic, governmental, or industry roles.

h) Students will learn to apply advanced geographical knowledge to solve societal problems, integrating academic research with practical applications.

i) The program integrates traditional geographic knowledge with advanced contemporary skills such as remote sensing, GIS, and spatial analysis, preparing students for technological and methodological advancements.

j) Multiple field visits will enhance students' understanding of the environmental, physical, and human characteristics of the area being visited.

k) The programme will lead to an Advanced Bachelor's Degree with Research if the student opts for the research track.

l) Masters Students will be equipped to contribute to scholarly and policy debates, addressing the needs of the contemporary world through a sophisticated understanding of geographic development.

m) The course enhances critical thinking and advanced research skills, preparing students for academic, governmental, or industry roles.

n) Students will learn to apply advanced geographical knowledge to solve societal problems, integrating academic research with practical applications.

o) The program integrates traditional geographic knowledge with advanced contemporary skills such as remote sensing, GIS, and spatial analysis, preparing students for technological and methodological advancements.

## NEP Four-Year Undergraduate & One Year MA Geography Syllabus Committee

| Sl No | Name and Affiliation | Convener/Member |
|---|---|---|
| 1. | Prof. Sadhana Rani<br>VSSD College, Kanpur | Convener |
| 2. | Dr. Kashif Imdad<br>PPN PG College, Kanpur | Member |
| 3. | Prof. Vineeta Singh<br>Jwala Devi College, Kanpur | Member |
| 4. | Dr. Sangeeta Sirohi<br>DG College, Kanpur | Invited Member |
| 5. | Prof. PP Rajput<br>Tilak MV, Auraiya | Member |
| 6. | Dr. Rakesh Kumar Mishra<br>DBS College, Kanpur | Member |
| 7. | Dr. Prabhat Singh<br>BB College, Farukhabad | Member |
| 8. | Prof. S R S Yadav<br>KK College, Etawah | Member |

**Note:** The above syllabus has been adapted from the existing NEP-based undergraduate and postgraduate syllabi of CSJM University, Kanpur. The following committee modified the syllabus according to the requirements of the NEP Four-Year Undergraduate Programme and One Year MA Geography Syllabus.

# CSJM UNIVERSITY, KANPUR
## GEOGRAPHY COURSE STRUCTURE
## BA/BA(Hons.)/BA(Honours with Research)/MA

| Year | Sem | Course Code | Paper Title | Course Type | Credit | CIA | ESE | Max Marks |
|---|---|---|---|---|---|---|---|---|
| **BA** | | | | | | | | |
| 1 | I | A110101T | Physical Geography | Theory Core | 4 | 25 | 75 | 100 |
| | I | A110102P | Elements of Map and Surveying | Practical Core | 2 | 25 | 75 | 100 |
| | II | A110201T | Human Geography | Theory Core | 4 | 25 | 75 | 100 |
| | II | A110202P | Thematic Mapping and Surveying | Practical Core | 2 | 25 | 75 | 100 |
| 2 | III | A110301T | Environment, Disaster Management and Climate Change | Theory Core | 4 | 25 | 75 | 100 |
| | III | A110302P | Statistical Techniques and Surveying | Practical Core | 2 | 25 | 75 | 100 |
| | IV | A110401T | Economic Geography | Theory Core | 4 | 25 | 75 | 100 |
| | IV | A110402P | Weather Maps, Geological Maps and Surveying | Practical Core | 2 | 25 | 75 | 100 |
| | IV | A110403R | Project Report | General Elective | 3 | 25 | 75 | 100 |
| 3 | V | A110501T | Regional Geography and Planning | Theory Core | 4 | 25 | 75 | 100 |
| | V | A110502T | Basics of Remote Sensing and GIS | Theory Core | 4 | 25 | 75 | 100 |
| | V | A110503P | Tour and Tour report | Practical Core | 2 | 25 | 75 | 100 |
| | VI | A110601T | Geography of India | Theory Core | 4 | 25 | 75 | 100 |
| | VI | A110602T | Evolution of Geographical Thought | Theory Core | 4 | 25 | 75 | 100 |
| | VI | A110603P | Remote Sensing and GIS | Practical Core | 2 | 25 | 75 | 100 |
| **BA Honours** | | | | | | | | |
| 4 | VII | A110701TN | Geographical Thought: Concepts and Issues | Theory Core | 4 | 25 | 75 | 100 |
| | VII | A110702TN | Advanced Geography of India | Theory Core | 4 | 25 | 75 | 100 |
| | VII | A110703TN | Geomorphology-Theories and Concepts | Theory Core | 4 | 25 | 75 | 100 |
| | VII | A110704TN | Research Methodology | Theory Core | 4 | 25 | 75 | 100 |
| | VII | A110705PN | Practical and Excursion Tour | Practical Core | 4 | 25 | 75 | 100 |
| | VIII | A110801TN | Regional Planning and Development | Theory Core | 4 | 25 | 75 | 100 |
| | VIII | A110802TN | Climatology | Theory Core | 4 | 25 | 75 | 100 |
| | VIII | A110803TN | Oceanography | Theory Core | 4 | 25 | 75 | 100 |
| | VIII | A110804TN | Disaster Management | Theory Elective | 4 | 25 | 75 | 100 |
| | | A110805TN | Social Geography | | | | | |
| | | A110806TN | Political Geography | | | | | |
| | VIII | A110807PN | Statistical Methods and Cartography | Practical Core | 4 | 25 | 75 | 100 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **BA Honours with Research**<br>Research Project (VIIth & VIIIth Sem) will be given only to those students who obtain a minimum of 75% marks till their sixth semester | | | | | | | | |
| 4 | VII | A110701TN | Geographical Thought: Concepts and Issues | Theory Core | 4 | 25 | 75 | 100 |
| | VII | A110702TN | Advanced Geography of India | Theory Core | 4 | 25 | 75 | 100 |
| | VII | A110703TN | Geomorphology-Theories and Concepts | Theory Core | 4 | 25 | 75 | 100 |
| | VII | A110708RN | Dissertation (Progressive) | Research Project | 4 | 25 | 75 | 100 |
| | VII | A110705PN | Practical and Excursion Tour | Practical Core | 4 | 25 | 75 | 100 |
| | VIII | A110801TN | Regional Planning and Development | Theory Core | 4 | 25 | 75 | 100 |
| | VIII | A110802TN | Climatology | Theory Core | 4 | 25 | 75 | 100 |
| | VIII | A110803TN | Oceanography | Theory Core | 4 | 25 | 75 | 100 |
| | VIII | A110809RN | Dissertation (Submitted) | Research Project | 4 | 25 | 75 | 100 |
| | VIII | A110807PN | Statistical Methods and Cartography | Practical Core | 4 | 25 | 75 | 100 |
| **MA Geography (1 Year)** | | | | | | | | |
| 5 | IX | A110901TN | Advance Remote Sensing and GIS | Theory Core | 4 | 25 | 75 | 100 |
| | IX | A110902TN | Population Geography | Theory Core | 4 | 25 | 75 | 100 |
| | IX | A110903TN | Economic and Resource Geography | Elective | 4 | 25 | 75 | 100 |
| | IX | A110904TN | Marketing Geography | | | | | |
| | IX | A110905TN | Industrial Geography | | | | | |
| | IX | A110906TN | Cultural Geography | | | | | |
| | IX | A110907PN | Geographic Information System | Practical Core | 4 | 25 | 75 | 100 |
| | IX | A110908RN | Dissertation (Progressive) | Research Project | 4 | 25 | 75 | 100 |
| | X | A111001TN | Urban Geography | Theory Core | 4 | 25 | 75 | 100 |
| | X | A111002TN | Agriculture Geography | Theory Core | 4 | 25 | 75 | 100 |
| | X | A111003TN | Advance Environmental Geography | Elective | 4 | 25 | 75 | 100 |
| | X | A111004TN | Rural Geography | | | | | |
| | X | A111005TN | Geography of Health | | | | | |
| | X | A111006TN | Geography of Tourism | | | | | |
| | X | A111007PN | Surveying | Practical Core | 4 | 25 | 75 | 100 |
| | X | A111009RN | Dissertation (Submitted) | Research Project | 4 | 25 | 75 | 100 |

Prof. Sadhana Rani
Convener, Geography
C.S.J.M. University, Kanpur

**BA 1st Year, Sem. I ,**
**Course I**
**(Theory)**

| Programme/Class: Certificate/ BA | Year: First | Semester: First |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110101T | Course Title: **Physical Geography** | |

Course outcomes: Students will be able to understand

- The Earth geomorphic transition from beginning to present day.
- Plate tectonics and related movements
- Landforms carved by various agents of erosion
- Earth's climate and that factors that influence it
- Oceans system and biogeography of the world.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25+75 | Min. Passing Marks: 40 |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| I | Nature and Scope of Physical Geography, Origin of Earth. Geological Time Scale (with special reference to evidences from India), Interior of the Earth. | 8 |
| II | Origin of Continents and Oceans: Isostasy, Continental Drift theory, Concept of Plate Tectonics. Earthquakes, Volcanoes, Geosynclines. | 8 |
| III | Rocks, Folding, Faulting, Weathering, Erosion, Drainage Pattern. | 8 |
| IV | Fluvial, Aeolian and Glacial Landforms, Cycle of Erosion(Davis and Penck). | 8 |
| V | Composition and Structure of atmosphere, Insolation, Atmospheric Pressure, Pressure Belts and Winds. | 7 |
| VI | Air Masses and Fronts, Cyclones and Anti-cyclones, Humidity, Precipitation and Rainfall Types. | 7 |
| VII | Ocean Bottom Relief, Salinity, Horizontal and Vertical Distribution of Temperature, Circulation of Ocean Water-Waves, Currents and Tides. Ocean Deposits, Corals Reef and Atolls. | 8 |
| VIII | Biosphere, Biotic Succession, Biome, Zoo-geographical Regions of the World. | 6 |

**Suggested Readings:**

1. Singh, Savindra (2018), Physical Geography (Eng./Hindi) Allahabad, India: PrayagPustak
2. Huggett, R.J. (2007): *Fundamentals of Geomorphology*. New York, U.S.A.: Routledge.
3. Khullar, D.R. (2012). *Physical Geography*. New Delhi. India: Kalyani Publishers.
4. Strahler, A. H. and Strahler, A N. (2001): *Modern Physical Geography* (4/E). New York, U.S.A.: John Wiley and Sons, Inc.
5. Thornbury, W. D. (2004): *Principal of Geomorphology*. New York, U.S.A.: Wiley.
6. Bloom, A. L. (2003). Geomorphology: A Systematic Analysis of Late Cenozoic Landforms, New Delhi, India: Prentice-Hall of India.
7. Singh, K. N. (1999) Physical Geography, Gyanodaya Prakashan, ISBN: 81-7487-236-1, Gorakhpur.

This course can be opted as an elective by the students of following subjects: Open for all

Suggested Continuous Evaluation Methods:
Assignment / Test / Quiz(MCQ) / Seminar/ Presentations

Suggested equivalent online courses:https://onlinecourses.swayam2.ac.in/cec21_hs03/preview
https://onlinecourses.swayam2.ac.in/nos20_sc25/preview

**BA 1st Year, Sem. I**
**Course II**
**(Practical)**

| Program/Class: Certificate/BA | Year: First | Semester: First |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110102P | Course Title: **Elements of Map and Surveying** | |

Course Learning Outcomes
On completion of this course, learners will be able to:
- Understand the basic idea of Map, Scale and Topographic sheets

| Credits: 2 | Core Compulsory |
|---|---|
| Max. Marks: -25+75 | Min. Passing Marks:40 |

Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Cartography: Nature and Scope.<br>Scales–Concept and application; Graphical Construction of Plain, Comparative, Diagonal Scales and Vernier scale. | 7 |
| **II** | Map Projections: Classification, Properties and Uses; Graphical Construction of Polar Zenithal, Stereographic, Bonne's and Mercator's Projections, and reference to Universal Transverse Mercator (UTM) Projection. | 7 |
| **III** | Topographical Map: Coverage, Scale and Topo Symbol, Interpretation Survey of India Toposheets. Representation of landforms by Contours. Slope Analysis – Wentworth's method. | 8 |
| **IV** | Basics of Surveying: Surveying: meaning, classification, merits and demerits. Plane Table Surveying. | 8 |

**Suggested Readings:**


1. Monkhouse, F. J. and Wilkinson, F.J. (1985): Maps and Diagrams. Methuen, London
2. Raisz, E. (1962): General Cartography. John Wiley and Sons, New York. 5th edition.
3. Sarkar, A. K. (1997): Practical Geography: A Systematic Approach. Orient Longman, Kolkata.
4. Sharma, J. P. (2001): Prayogik Bhugol., Rastogi Publication, Meerut 3rd. edition.
5. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions). Kalyani Publishers, New Delhi,.
6. Singh, L.R. (2006): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad.


This course can be opted as an elective by the students of following subjects: Open for all

**BA 1st Year,Sem. II**
**Course I**
**(Theory)**

| Program/Class: Certificate/BA | Year: First | Semester: Second |
|---|---|---|
| Subject: Geography | | |
| Course Code:A110201T | Course Title: **Human Geography** | |

Course Learning Outcomes
On completion of this course, learners will be able to:

- To understand the Concept, Nature, Meaning and Scope of Human Geography
- To understand the natural and Cultural Changes in and around the Human Environs and their interrelationship.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: -25+75 | Min. Passing Marks:40 |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| I | Concept and Nature, Meaning and Scope of Human Geography. Development of Geographical Understanding in India With Special Reference to Puranas. | 8 |
| II | Man and Environment Relationship- Determinism, Possibilism, and Neo-determinism. | 7 |
| III | Population: Growth and Distribution, Migration: Causes and Consequences, Concept of Over Population and Under Population. | 7 |
| IV | Human Settlements: Origin, Types and Pattern (Rural-Urban), House Types and Their Distribution With Special Reference to India. | 7 |
| V | Primary Activities- Gathering, Hunting, Pastoral Herding, Fishing, Lumbering and Primitive Agriculture. | 8 |
| VI | Cultural Regions, Cultural Diffusion, Race, Religion and Language. | 8 |
| VII | World Tribes: Eskimos, Kirghiz, Bushman, Masai, Semang, Pygmies, Bedouin. | 7 |
| VIII | Indian Tribes: Bhotias, Gaddis, Tharus, Bhil, Gond, Santhal, Nagas, Jarawa. | 8 |

**Suggested Readings:**


1. Chisholm, M. (1985): Human Geography, 2nd edition, Penguin Books, London.
2. B N Singh (2019) Manav Bhugol ka Swaroop, Pravalika Publication, Allahabad
3. de Blij, H.J.(1996): Human Geography: Culture, Society and Space,. 2nd edition. John Wiley and Sons, New York,
4. Haggett, P. (2004): Geography: A Modern Synthesis. 8th edition, Harper and Row, New York.
5. Hussain, M. (1994): Human Geography, Rawat Publications, Jaipur.
6. B N Singh (2021) Manav evam Arthik Bhugol, Pravalika Publication, Allahabad
7. Kaushik, S.D. and Sharma, A.K. (1996): Principles of Human Geography (in Hindi), Rastogi Publication, Meerut.
8. Norton, W. (2008): Human Geography, Oxford University Press, New York. 5th ed.
9. Singh, K. N. and Singh, J. (2001): Manav Bhugol. Gyanodaya Prakashan, Gorakhpur. 2nd edition.
10. Singh, L.R. (2005): Fundamentals of Human Geography, Sharda Pustak Bhawan, Allahabad
11. Singh, K. N. (2014) Human Geography, Gyanodaya Prakashan, Gorakhpur.
12. Stoddard, R.H., Wishart, D.J. and Blouet, B.W. (1986): Human Geography. Prentice-Hall, Englewood Cliffs, New Jersey.
13. B N Singh (2020) Samajik aur Sanskritik Bhugol, Pravalika Publication, Allahabad
14. Johnston, R. J., Gregory, D., Pratt, G. and Watts, M. (2009): The Dictionary of Human Geography.5th edition, Basil Blackwell Publishers, Oxford.
15. Ali, S. Muzafer (1966). Geography of the Puranas. New Delhi, People's Pub. House.
16. Smith, D. M.(1977): Human Geography- A Welfare Approach, Edward Arnold (Publishers) Ltd., London


Suggested Continuous Evaluation Methods:
Assignment / Test / Quiz( MCQ) / Seminar/ Presentations

Course prerequisites: 12th Standard Pass/Open to all

Suggested equivalent online courses:
Courses on Swayam / MOOCs
https://onlinecourses.swayam2.ac.in/nou20_hs18/preview

**BA 1st Year, Sem. II**
**Course II**
**(Practical)**

| Program/Class: Certificate/BA | Year: First | Semester: Second |
|---|---|---|
| Subject: Geography | | |
| Course Code:A110202P | Course Title: **Thematic Mapping and Surveying** | |

Course Learning Outcomes
On completion of this course, learners will be able to:
- Understand the basic idea of Map, Scale and Topographic sheets

| Credits: 2 | Core Compulsory |
|---|---|
| Max. Marks: -25+75 | Min. Passing Marks:40 |

Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| I | Maps – Classification and Types, Principles of Map Design. Diagrammatic Data Presentation – Line, Bar and Circle. | 8 |
| II | Thematic Mapping Techniques – Properties, Uses and Limitations; Areal Data -- Choropleth, Dot, Proportional Circles; Point Data – Isopleths. | 8 |
| III | Concept of Point, Line and Areal Data.Thematic Maps – Preparation and Interpretation. | 7 |
| IV | Instrumental Survey: Prismatic Compass | 7 |

**Suggested Readings:**


1. Monkhouse, F. J. and Wilkinson, F.J. (1985): Maps and Diagrams. Methuen, London
2. Raisz, E. (1962): General Cartography. John Wiley and Sons, New York. 5th edition.
3. Sharma, J. P. (2001): Prayogik Bhugol., Rastogi Publication, Meerut 3rd. edition.
4. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions). Kalyani Publishers, New Delhi,.
5. Singh, L.R. (2006): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad.
6. Sharma, JP. (2008): Prayogatmak Bhugol Ki Rooprekha, Rastogi Publications-Meerut.
7. Singh, K. N. (2005) Fundamentals of Practical Geography, Part-I Gyanodaya Publication, Gorakhpur.
8. Singh, K. N. (2006) Fundamentals of Practical Geography, Part-II Gyanodaya Prakashan, Gorakhpur.


Note: In Final Examination Student shall be examined by external and internal examiners.
Marks Distribution: Written Exam, Viva, Practical File, Map Preparation.

**BA 2nd Year, Sem. III**
**Course I**

**(Theory)**

| Programme/Class: Diploma/BA | Year: Second | Semester: Third |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110301T | Course Title: **Environment, Disaster Management and Climate Change** | |

Course outcomes: Students will be able to understand

- The course aim is to give basic understanding of concept Environment, Climate Change and Disaster Management.
- Understanding of the concept of appraisal and conservation of Environment and Natural Resources.
- It will help in developing understanding about various Impacts of Climate Change.
- This course shall introduce the basic concepts related to disaster Management.
- This paper shall help in understanding Global effort in field of disaster management.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25+75 | Min. Passing Marks: 40 |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w | |

| Unit | Topics | No. of Lectures |
|---|---|---|
| I | Concepts & Components of Environment, Ecology and Ecosystem. Indian Traditional Knowledge in Environment and Disaster Management. | 8 |
| II | Bio-diversity and its Conservation, Sustainable Development. | 8 |
| III | Deforestation, Soil Erosion, Soil Exhaustion, Desertification, Air Pollution, Water Pollution, Disposal of Solid Waste. | 8 |
| IV | Institutional Initiatives: Ganga Action Plan, Tiger Project, Tehri Dam & Narmada Valley Project. | 8 |
| V | Understanding Climate Change; Green House Gases and Global Warming. | 8 |
| VI | Global Climatic Assessment – IPCC, Impacts of Climate Change, National Action Plan on Climate Change. | 7 |
| VII | Risk, Vulnerability, Hazards, Disasters, Type of Disasters, Disaster Management: Concept and Cycle. | 7 |

| | | |
|---|---|---|
| VIII | Flood, Drought, Cyclone, Earthquake, Tsunami, Landslide, Chemical, Epidemiological Disaster and Nuclear Disaster Management. Do's and Don'ts During Disasters. | 6 |

**Suggested Readings:**


1. Casper J.K. (2010). *Changing Ecosystems: Effects of Global Warming*. New York, USA: Infobase Pub.
2. Hudson, T. (2011). *Living with Earth: An Introduction to Environmental Geology*. Delhi, India: PHI Learning Private Limited.
3. Miller, G.T. (2007). *Living in the Environment: Principal, Connections, and Solutions*. Belmont, Australia: Brooks/ Cole Cengage Learning.
4. Singh, R.B. (1993) *Environmental Geography*. Delhi, India: Heritage Publishers.
5. UNEP. (2007). *Global Environment Outlook: GEO4: Environment For Development, United Nations Environment Programme*. UK: University Press, Cambridge.
6. Government of India. (2011). *Disaster Management in India*. Delhi, India: Ministry of Home Affairs.
7. Singh, Savendra (2019) Pryavaran Bhugol, Pravalika Publication, Allahabad
8. Kapur, A. (2010). *Vulnerable India: A Geographical Study of Disasters*. Delhi, India: Sage Publication.
9. Singh, Savendra (2019) Apada Prabandhan, Pravalika Publication, Allahabad.
10. Ramkumar, M. (2009). *Geological Hazards: Causes, Consequences and Methods of Containment*. New Delhi, India: New India Publishing Agency.
11. Climate Change: Understanding Climate Change; Green House Gases and Global Warming; Global Climatic Assessment- IPCC
12. Climate Change and Vulnerability: Physical Vulnerability; Economic Vulnerability; Social Vulnerability.
13. Impact of Climate Change: Agriculture and Water; Flora and Fauna; Human Health
14. Adaptation and Mitigation: Global Initiatives with Particular Reference to South Asia.
15. The Climate Change Policy Framework: Global Initiatives UNFCCC and COPs; National and Local Action Plan on Climate Change.
16. Government of India. (2008). *Vulnerability Atlas of India*. New Delhi, India: Building Materials & Technology Promotion Council, Ministry of Urban Development, Government of India
17. Modh, S. (2010). *Managing Natural Disaster: Hydrological, Marine and Geological Disasters*. Delhi, India: Macmillan.
18. Bansal SC,(2020) Jalvayu vigyan evam Samudra Vigyan, Meenakshi Publication, Meerut.
19. Bansal SC,(2019) Prayavarn ek adhyan, Meenakshi Publication, Meerut.
20. Pandey, R.K.(2020) "Disaster Management in India", Sage Text, Delhi.
21. Gupta, Abhik, (2021) "Environmental Studies Principles and Practices", Sage Text, Delhi,
22. छोकर, किरण, (2018) "पर्यावरण बोध", Sage Publication, Delhi,


This course can be opted as an elective by the students of following subjects: Open for all

Suggested Continuous Evaluation Methods:
Assignment / test / Quiz( MCQ) / Seminar/ Presentations

Suggested equivalent online courses:
https://onlinecourses.swayam2.ac.in/aic19_ge05/preview
https://onlinecourses.swayam2.ac.in/nou21_bt03/preview

**BA 2nd Year, Sem. III**
**Course II**
**(Practical)**

| Programme/Class: Diploma/BA | Year: Second | Semester: Third |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110302P | Course Title: **Statistical Techniques and Surveying** | |

Course outcomes: Students will be able to understand

- To differentiate between qualitative and quantitative information.
- To understand the nature of various data.
- To understand sampling methods for data collection.
- To present data through graphical and diagrammatic formats.
- To use the concept of probability mainly the normal distribution.

| Credits: 2 | Core Compulsory |
|---|---|
| Max. Marks: 25+75 | Min. Passing Marks: 40 |
| Total No. of Lectures-Tutorials-Practical (in hours per week): P- 2/w | |

| Unit | Topics | No. of Lectures |
|---|---|---|
| I | Use of Data in Geography: Significance of Statistical Methods in Geography; Sources of Data, Scales of Measurement (Nominal, Ordinal, Interval, Ratio) | 8 |
| II | Tabulation and Descriptive Statistics: Frequency Distribution Table, Cross Tabulation, Graphical Presentation of Data (Bar Diagram, Histograms, Frequency Curve and Cumulative Frequency Curves), Measurement of Central Tendencies (Mean, Median and Mode), Measurement of Partitions (Deciles, Quartiles and Percentiles), Dispersion (Standard Deviation, Variance and Coefficient of Variation). | 8 |
| III | Sampling: Probability and Non-probability Sampling. Correlation: Rank Correlation and Product Moment Correlation. | 7 |
| IV | Instrumental Survey: Indian Clinometer | 7 |

**Suggested Readings:**


1. Berry B. J. L. and Marble D. F. (eds.): Spatial Analysis – A Reader in Geography.
2. Ebdon D., 1977: Statistics in Geography: A Practical Approach.

3. Davis, R.E. and Foote, F.S. (1953): Surveying, 4th edition, McGraw Hill Publication, New York
4. Sharma, JP (2001) Prayogik Bhugol, Rastogi Publication, Meerut
5. Hammond P. and McCullagh P. S., 1978: Quantitative Techniques in Geography: An Introduction, Oxford University Press.
6. Sharma, PM, (2009) Bhugol Me sankhkiya Vidhyan, Rajasthan Granth Accademy, Jaipur
7. Bansal SC,(2020) Shodh vidhitantra va sankhikiya Vishyan, RK Books Publication, New Delhi.
8. King L. S., 1969: Statistical Analysis in Geography, Prentice-Hall.
9. Mahmood A., 1977: Statistical Methods in Geographical Studies, Concept.
10. Pal S. K., 1998: Statistics for Geoscientists, Tata McGraw Hill, New Delhi.
11. Sarkar, A. (2013) Quantitative geography: techniques and presentations. Orient Black Swan Private Ltd., New Delhi
12. Silk J., 1979: Statistical Concepts in Geography, Allen and Unwin, London.
13. Spiegel M. R.: Statistics, Schaum's Outline Series.
14. Yeats M., 1974: An Introduction to Quantitative Analysis in Human Geography, McGraw Hill, New York.
15. Narayana, D., Ranjan, Sharad, (2021) "Basic Computational Techniques For Data Analysis", Sage Text, Delhi.
16. Singh, K. N. (2005) Fundamentals of Practical Geography, Part-I Gyanodaya Publication, Gorakhpur.
17. Singh, K. N. (2006) Fundamentals of Practical Geography, Part-II Gyanodaya Prakashan, Gorakhpur.

This course can be opted as an elective by the students of following subjects: Open for all

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Note: In Final Examination Student shall be examined by external and internal examiners. Marks Distribution: Written Exam, Viva, Practical File, Instrumental Surveys.

**BA 2nd Year, Sem. IV**
**Course I**
**(Theory)**

| Program/Class: Diploma /BA | Year: Second | Semester: Fourth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110401T | Course Title: **Economic Geography** | |

Course Learning Outcomes
On completion of this course, learners will be able to:

- Define Meaning, concepts and approaches of Economic Geography
- Understand the nature of Economic activities, Resource Distribution
- Understand the Effect of globalization on developing countries.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25+75 | Min. Passing Marks:40 |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| I | Meaning, Concepts and Approaches of Economic Geography; | 6 |
| II | Resource: Meaning, Concept, Classification and Conservation.<br>Spatial Organization of Economic Activities. | 9 |
| III | Economic Organization of Space, Forestry, Fishing and Mining Activities. | 8 |
| IV | Agricultural Typologies, Agricultural Land Use Model (J.H. Von Thunen), Agricultural Region of the World (Derwent Whittlesey). | 9 |
| V | Types of Industries; Factors of Location of Industries; Iron and Steel Industry, Cotton Textiles and Sugar; Theory of Industrial Location (Alfred Weber). | 9 |
| VI | World Transportation: Sea Routes and Major Trans-continental Railways. | 8 |
| VII | WTO and International Trade: Patterns and Trends, With Special Reference to India | 6 |
| VIII | Effect of Globalization on Developing Countries. With Special Reference to India | 5 |

**Suggested Readings:**


1. B N Singh (2021) Manav Evam Arthik Bhugol, Pravalika Publication, Allahabad
2. Bryson, J., Henry, N., Keeble, D. and Martin, R. (eds.) (1999): The Economic Geography Reader: Producing and Consuming Global Capitalism. John Wiley and Sons, Inc, New York.
3. Clark,G. L., Gertler, M. S. and Feldman, M. P. (eds.) (2000): The Oxford Handbook of Economic Geography. Oxford University Press, USA.
4. Coe, N. (2007): Economic Geography: A Contemporary Introduction. Blackwell Publishers, Inc., Massachusetts.
5. Gautam, A. (2006): Aarthik Bhugol Ke Mool Tattava, Sharda Pustak Bhawan, Allahabad.
6. Singh, K. N. (2013) Arthik Bhoogol ke Mool Tatva, Gyanodaya Prakashan, Gorakhpur.
7. RC Tiwari & BN Singh (2021) Krishi Bhugol, Pravalika Publication, Allahabad.
8. Hartshorne, T. A. and Alexander, J. W. (1988): Economic Geography (3rd revised edition) Englewood Cliff , New Jersey, Prentice Hall
9. Hudson, R. (2005): Economic Geographies: Circuits, Flows and Spaces. Sage Publications, London.
10. Knowles, R, Wareing, J. (2000): Economic and Social Geography Made Simple, Rupa and Company, New Delhi.
11. Sokal, Martin 2011. Economic Geographics of Globalisation: A short Introduction. Cheltenham, UK : Edward Elgar.
12. Alexander, J. W. (1988): Economic Geography. Prentice-Hall, New Delhi,
13. Guha, J. S. and Chattoraj, P.R. (2002): A New Approach to Economic Geography: A Study of Resources. The World Press Private Limited, Kolkata.
14. Hanink, D. M. (1997): Principles and Applications of Economic Geography: Economy, Policy, Environment. John Wiley and Sons, Inc, New York.


Suggested Continuous Evaluation Methods:
Assignment / test / Quiz( MCQ) / Seminar/Presentations

Suggested equivalent online courses:
Courses on Swayam / MOOCs
https://onlinecourses.nptel.ac.in/noc21_hs50/preview

## BA 2nd Year, Sem. IV
## Course II
## (Practical)

| Program/Class: Diploma /BA | Year: Second | Semester: Fourth |
|---|---|---|
| Subject: Geography | | |
| Course Code:A110402P | Course Title: **Weather Maps, Geological Maps and Surveying** | |

Course Learning Outcomes
On completion of this course, learners will be able to:

- Identify the various Survey Operations and Survey Instruments
- To understand the idea of Basic and applied Instrumental surveying

| Credits: 2 | Core Compulsory |
|---|---|
| Max. Marks: 25+75 | Min. Passing Marks:40 |

Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| I | Weather Maps, Study and Interpretation of Weather Map, Weather Forecasting. | 7 |
| II | Geological Maps: Types, Signs, Bed and Bedding Plane, Rock Outcrop, Dip, Strike etc. Construction of Geological Sections. | 10 |
| III | Instrumental Survey: Sextant | 5 |
| IV | Instrumental Survey: Dumpy Level | 8 |

**Suggested Readings:**


1. Sharma, JP (2001) Prayogik Bhugol, Rastogi Publication, Meerut
2. Jones, P.A.(1968): Fieldwork in Geography, Longmans, Green and Company Ltd., First Publication, London
3. Kanetker, T.P. and Kulkarni, S.V.(1967): Surveying and Levelling, Vol I and II V.G. Prakashan, Poona.
4. Natrajan, V. (1976): Advanced Surveying, B.I. Publications., Mumbai.
5. Pugh, J.C. (1975): Surveying for Field Scientists, Methuen and Company Ltd., London, First Publication.
6. Punmia, B.C.(1994): Surveying, Vol I, Laxmi Publications Private Ltd, New Delhi.
7. Shephard, F.A. (1968): Surveying Problems and Solutions, Edward Arnold (Publishers) Ltd, London
8. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions), Kalyani Publishers, Ludhiana and New Delhi.
9. Venkatramaiah, C. (1997): A Text Book of Surveying, Universities Press, Hyderabad.
10. Davis, R.E. and Foote, F.S. (1953): Surveying, 4th edition, McGraw Hill Publication, New York.
11. Singh, K. N. (2005) Fundamentals of Practical Geography. Part-I Gyanodaya

Publication, Gorakhpur.
12. Singh, K. N. (2006) Fundamentals of Practical Geography, Part-II Gyanodaya Prakashan, Gorakhpur.

Note: In Final Examination Student shall be examined by external and internal examiners.
Marks Distribution: Written Exam, Viva, Practical File, Instrumental Surveys.

# BA 2nd Year, Sem. IV
## Course III
## (Project Report)

| Program/Class: Degree/BA | Year: Second | Semester: Fourth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110403R | Course Title: **Project Report** | |

Course outcomes: Students will be able to understand

- In-depth knowledge and application of RS and GIS technology in research.
- Learn to prepare Project Report.

| Credits: 3 | Core Compulsory |
|---|---|
| Max. Marks: 25+75 | Min. Passing Marks:40 |

Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| I | Project report shall be on any topic of interest of students.<br><br>Note:<br>1. Each faculty member shall teach and guide to his/her Group of students independently.<br>2. Student shall be allotted according to research interest and specialisation of Faculty member. | 30 |

**Suggested Readings:**

This course can be opted as an elective by the students of following subjects: Open for all.....

**Suggested Continuous Evaluation Methods:**

Seminar, Presentations, VIVA

Suggested equivalent online courses

**BA 3rd Year, Sem. V**
**Course I**
**(Theory)**

| Programme/Class: Degree/BA | Year: Third | Semester: Fifth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110501T | Course Title: **Regional Geography and Planning** | |

Course outcomes: Students will be able to understand

- To understand the concept of Region and Regional Planning.
- To familiarize the students with Theories and Models for Regional Planning.
- To develop understanding about concept of Development, Sustainable Development and Multi level planning.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25+75 | Min. Passing Marks: 40 |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| I | Regions: Concept and Classification , Basis and Approaches of Regionalisation. Evolution and Objectives of Regional Planning. Planning Practices in Ancient India. | 8 |
| II | Types of Region, Formal and Functional, Planning Regions. Macro, Meso and Micro Regions. | 8 |
| III | Approaches to Regional Geography of Middle Ganga Plain, Chota Nagpur Plateau, Rajasthan Desert and Ladakh. | 8 |
| IV | Concept of Development and Underdevelopment. Sustainable Development, | 8 |
| V | Concept, Theories and Models for Regional Planning: Perroux; Myrdal, Rostow. | 8 |
| VI | Indicators of Development and Regional Disparity (Economic, Social and Environmental). | 7 |
| VII | Efficiency-Equity Debate: Definition, Components and Sustainability for Development. | 7 |
| VIII | Regional Planning in India: Experiences Through Five Year Plans, Multi Level Planning, Participatory Planning, Role of Panchayati Raj Institutions and Urban Local Bodies. | 6 |

**Suggested Readings:**


1. Agyeman, Julian, Robert, D. Bullard and Bob,Evans. (Eds.) (2003). *Just Sustainabilities: Development in an Unequal World*. London: Earthscan. (Introduction and conclusion.).
2. Pattanaik, B.K., (2020) "Introduction to Urban Development and Planning", Sage Text, Delhi.
3. 
4. Anand, Subhash.,( 2011). *Ecodevelopment : Glocal Perspectives*. New Delhi, India: Research India Press.
5. Misra, R. P., Sundaram, K.V., and Rao, V.L.S. (1974). *Regional Development planning in India*. Delhi, India: Vikas Publishing House.
6. Singh, M B, () Pradeshik Vikas Niyogan, Tara Book Agency, Varanasi.
7. Peet, R. (1999). *Theories of Development*. New York, USA: The Guilford Press.
8. Berry, BJ.L. and Horton, F.F. (1970): Geographic Perspectives on Urban Systems. Prentice Hall, New Jersey.
9. Bhat L.S. (1972): Regional Planning In India, Statistical Publishing Society
10. Blij H. J. De, 1971: Geography: Regions and Concepts, John Wiley and Sons.
11. Kulshetra ,S.K,( 2012) : Urban and Regional Planning in India : A hand book for Professional Practioners , Sage Publication , New Delhi
12. Kundu, A. (1992): Urban Development Urban Research in India, Khanna Publ. New Delhi.
13. Misra , R.P, Sundaram K.V, Prakash Rao , VLS( 1974): Regional Development Planning in India , Vikas Publication , New Delhi.
14. Misra, R.P (1992): Regional Planning: Concepts , techniques , Policies and Case Studies , Concept , New Delhi
15. Friedmann, J. and Alonso W. (1975). *Regional Policy - Readings in Theory and Applications*. Massachusetts, USA: MIT Press.


This course can be opted as an elective by the students of following subjects: Open for all

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Suggested Continuous Evaluation Methods:
Assignment / test / Quiz( MCQ) / Seminar/ Presentations

Suggested equivalent online courses:
https://onlinecourses.swayam2.ac.in/aic19_ge05/preview

**BA 3rd Year, Sem. V**
**Course II**
**(Theory)**

| Program/Class: Degree /BA | Year: Third | Semester: Fifth |
|---|---|---|
| Subject: Geography | | |
| Course Code:A110502T | Course Title: **Basics of Remote Sensing and GIS** | |

Course Learning Outcomes
On completion of this course, learners will be able to:

- Understand the Basic idea and application of Remote sensing Techniques and Geographical Information System

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25+75 | Min. Passing Marks:40 |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| I | Remote Sensing: Definition, Type, Scope and Historical Development. Types of Satellites. | 7 |
| II | Electro-magnetic Radiation: Characteristics, Spectral Regions and Bands. Stages or Process of Remote Sensing. | 7 |
| III | Remote Sensing Satellites: Platform and Sensors. Resolution: Spatial, Spectral, Temporal, Radiometric Resolution. | 8 |
| IV | Remote Sensing Data Processing and Applications: Visual and Digital Image Processing Techniques. | 8 |
| V | Remote Sensing Applications in Urban Planning, Agriculture, Forestry, Land Use/Land Cover Mapping, Oceanic Studies and Disaster Management. | 6 |
| VI | Introduction to GIS: Definition, Concept and Development of GIS. | 8 |
| VII | Computer Fundamentals for GIS, GIS Packages like ARC GIS, ERDAS, QGIS etc. | 8 |
| VIII | Coordinate System, Datum, Raster and Vector data. | 8 |

**Suggested Readings:**


1. Choniyal, D D, (2016) Sudur Samvaden evam Bhogolic Suchna Pranali ke sighant, Sharda Pustak Bhavan, Allahabad.
2. Lillesand, T.M. and Kiefer, R.W. (2000): Remote Sensing and Image Interpretation. 4th edition. John Wiley and Sons, New York
3. Campbell, J.B. (2002): Introduction to Remote Sensing. 5th edition, Taylor and Francis, London
4. Bhatta, B. (2010): Remote Sensing and GIS, Oxford University Press, New Delhi.
5. Nag Prithvish and Kudrat M. (1998): Digital Remote Sensing, Concept Publishing Company, New Delhi
6. Curran, P.J. (1985): Principles of Remote Sensing, Longman, London.

| |
|---|
| Suggested Continuous Evaluation Methods:<br>Assignment / test / Quiz( MCQ) / Seminar/Presenatations |
| Suggested equivalent online courses:Courses on Swayam / MOOCs<br>https://onlinecourses.swayam2.ac.in/aic20_ge05/preview |

**BA 3rd Year, Sem. V,**
**Course III**
**(Practical)**

| Programme/Class: Degree/BA | Year: Third | Semester: Fifth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110503P | Course Title: **Geographical Excursion and Tour report** | |

Course outcomes: Students will be able to understand
- The variation among geographical locations.
- Interaction with people with different natural and cultural settings.
- Study physical and human geography of area being visited.
- Learn to prepare tour report.

| Credits: 2 | Core Compulsory |
|---|---|
| Max. Marks: 100 | Min. Passing Marks: 40 |

Total No. of Lectures-Tutorials-Practical (in hours per week): P- 2/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| I | Significance of Geographical Excursion, Planning for Excursion, Preparation of Surveying in Field Trip. Prepration of Field Book, steps and methods for preparing Tour report, Methodology for Research in Field Trip, Various aspects of study in Field Trip. (30 lectures shall be taken before and during field trip) | 30 |

**Suggested Readings:**

This course can be opted as an elective by the students of following subjects: Open for all.....

**Suggested Continuous Evaluation Methods:**
The following shall be the guidelines and structure of Educational tour:

**Geographical Excursion Committee**

1. All faculty members shall organize geographical excursion as 'tour in-charge' in rotation according to departmental seniority list.
2. There shall be Geographical Excursion Committee headed by HOD in University and Principal in colleges. Tour in-charge shall act as convener of committee and shall convene a meeting at the beginning of session or semester. All other teachers of department shall be member of committee. Four/Five meritorious students based on last available examination result shall be invited by the tour in-charge to participate in meeting as members of committee.
3. Committee shall:
   a) Review the tour plan.

b) Confirm that all arrangements shall be made in advance before tour departure.
c) Listen to the opinion of students and give recommendations to tour in-charge accordingly.
d) Review academic nature of tour and evaluate day wise tour plan and academic activity as submitted by Tour in-charge.

**Structure of the tour party**

1. For 20 or less than 20 students one faculty member with one non teaching staff shall accompany the Tour party. For 21 to 50 students two faculty members with one non teaching staff shall accompany the Tour party. If two faculty members are required for tour, second faculty member shall be selected on the recommendation of tour in-charge. If students are more than 50 then a separate tour batch shall be constituted in same manner.
2. If female students are also participating in tour and tour in-charge, accompany other faculty member or Non teaching staff none are female then one female attended (Female faculty member from Geography or any other departments/female non teaching staff) shall accompany with tour party.

**Responsibility of tour in-charge**

1. Tour shall at least of 6 days stay at location with inter region variation (Mountain, Plain, Plateau or Desert).
2. Tour in-charge shall submit tentative day wise activity report in advance to HOD in University and Principal in colleges.
3. Tour in-charge shall coordinate with Institutes/Colleges/ Universities/Research institutes etc in location where tour is being planned for following activities like;
   a) Interaction of students.
   b) Lectures on various local physical and cultural attributes of the area by the experts.
   c) Local visit with faculty members having academic understanding of the area.
4. Lectures by tour in-charge on physical and human characteristics of area being visited for educational tour.
5. Survey with students with at least one instrument like Dumpy Level, Sextant, Theodolite, GPS etc.
6. Questionnaire survey on various socio-cultural or any other aspects. Questionnaire must be prepared in advance and shall be shared during Geographical Excursion Committee meeting.
7. Tour in-charge shall collect undertaking from all students which shall be counter signed by their guardian.
8. Tour in-charge will prepare list of students accompanying the tour with their information like mobile number, address, guardian contact information and one recent color photo. One copy will also be submitted to the head in universities and Principal in colleges.
9. Teacher shall always try to minimize tour expenditure of students by;

a) Using concession train reservation and avoiding buses if possible.
b) Making stay arrangements of students in advance in youth hostels/lodges/guest house etc.
c) Try to visit few important locations only with objective of spot study and avoiding unnecessary travel for sightseeing.

10. After the completion of tour there shall be presentation by students regarding learning outcomes and experiences under the supervision of tour in-charge. Presentation shall be attended by Geographical Excursion Committee members along with other faculty members, staff, students etc.
11. All students shall submit tour report under supervision of Tour in-charge for evaluation. Tour report shall portray all activities conducted and places visited for the purposes of study.
12. In case of any incident/injury where one or more than one student can't join tour party in return journey. One teaching/non teaching staff member shall stay with student until student's guardian arrives or alternative arrangement is not made by the college. In case tour in-charge stays the other teacher/staff member shall act as tour in-charge for remaining tour period according to seniority.

**Exemption of Students from Tour**

1. Tour can be exempted in very special circumstances on recommendation of tour in-charge and head (in University) or Principal (in Colleges). Exempted students will prepare local tour report based on his/her own local tour visits. Report shall be prepared under supervision of tour in-charge.

**TA, DA and other expenses**

1. The TA, DA and other expenses of teachers and attendants shall be met out by college as admissible to their cadre as per government rules.

Suggested equivalent online courses

**BA3rd Year, Sem. VI,**
**Course I**
**(Theory)**

| Program/Class: Degree /BA | Year: Third | Semester: Sixth |
|---|---|---|
| Subject: Geography | | |
| Course Code:A110601T | Course Title: **Geography of India** | |

Course Learning Outcomes

On completion of this course, learners will be able to:

- Understand the importance of "Ek Bharat Shrestha Bharat"
- Understand the wider aspects of Geography of India

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25+75 | Min. Passing Marks: 40 |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| I | Space Relationship of India with Neighbouring Countries; Structure and Relief; Drainage System; Physiographic Regions; Ek Bharat Shrestha Bharat: A Geographical Perspective. | 8 |
| II | Mechanism of Indian Monsoons and Rainfall Patterns, Tropical Cyclones, and Western Disturbances; Climatic Regions; Natural Vegetation; Soil Types and Their Distributions. | 8 |
| III | Land, Water (Surface and Groundwater), Energy, Minerals, Biotic and Marine Resources; ; Energy Crisis. | 7 |
| IV | Factors Influencing Agriculture: Major Crops (Wheet, Rice, Cotton, Sugarcane), Cropping Pattern and Intensity, Agricultural Regions, Agro and Social-forestry; Green Revolution and its Socio-economic and Ecological Implications. | 7 |
| V | Industry: Locational Factors of Industries With Special Reference to Iron and Steel, Textiles, Cement and Auto-mobile Industrial Regions and Industrial Complexes; New Industrial Policies; Special Economic Zones. | 8 |
| VI | Cultural Setting: Historical Perspective of Indian Society; Racial, linguistic and Ethnic Diversities; Unity in Diversity, Cultural Regions. | 8 |
| VII | Population: Growth, Distribution, and Density Demographic Attributes: Sex-ratio, Age Structure, Literacy and Occupational Structure. Migration (Inter-regional, Intraregional and International) and Associated Problems; Population Problems and Policies; | 6 |

| | | |
|---|---|---|
| **VIII** | Settlements: Types, Patterns, and Morphology of Rural Settlements; Trends and Pattern of Urbanisation; Urban Sprawl; Slums and Associated Problems; Town Planning; Problems of Urbanization and Remedies. Smart Cities and Inclusive Cities. | 8 |

**Suggested Readings:**


1. Chauhan, P.R. and Prasad, M. (2003): Bharat Ka Vrihad Bhugol, Vasundhara Prakashan, Gorakhpur.
2. Farmer, B.H. (1983): An Introduction to South Asia. Methuen, London
3. Gautam, A. (2006): Advanced Geography of India, Sharda PustakBhawan, Allahabad
4. Johnson, B.L.C. (1963): Development in South Asia. Penguin Books, Harmondsworth
5. Krishnan, M.S. (1982): Geology of India and Burma, CAS Publishers and Distributors, Delhi.
6. Bansal SC,(2018) Bharat Ka Bhugol, Meenakshi Publication, New Delhi, Meerut.
7. Nag, P. and Gupta, S. S. (1992): Geography of India, Concept Publishing Company, New Delhi.
8. Singh, K. N. (2008) The Geography of India, Gyanodaya Prakashan, Gorakhpur.
9. Sharma, T.C. and Coutinho, O. (2003): Economic and Commercial Geography of India, VikasPublishing House Private Ltd. New Delhi.
10. Singh , J. (2003): India: A Comprehensive Systematic Geography. Gyanodaya Prakashan,Gorakhpur
11. Singh, J. (2001): Bharat: Bhougolik Aadhar Avam Ayam, Gyanodaya Prakashan, Gorakhpur.(Hindi)
12. Singh, R.L. (ed.) (1971): India: A Regional Geography. National Geographical Society of India,Varanasi.
13. Spate, O.H. K., Learmonth A. T. A. and Farmer, B. H. (1996): India, Pakistan and Sri Lanka.Methuen, London, 7th edition.
14. Sukhwal, B.L. (1987): India: Economic Resource Base and Contemporary Political Patterns.Sterling Publication, New Delhi
15. Tiwari, R.C. (2007): Geography of India, Prayag Pustak Bhawan, Allahabad.
16. Wadia, D. N. (1959): Geology of India. Mac-Millan and Company, London and student edition,Madras.
17. Khullar, D.R. ( 2007): India: A Comprehensive Geography, Kalyani Publishers, New Delhi.
18. Rao, B.P. ( 2007): Bharat kee Bhaugolik Sameeksha, Vasundhara Prakashan, Gorakhpur.


Suggested Continuous Evaluation Methods:
Assignment / test / Quiz( MCQ) / Seminar/ Presentations

Suggested equivalent online courses:Courses on Swayam / MOOCs
https://onlinecourses.swayam2.ac.in/nou20_ag10/preview

## BA 3rdYear, Sem. VI,
## Course II
## (Theory)

| Program/Class: Degree /BA | Year: Third | Semester: Sixth |
|---|---|---|
| Subject: Geography | | |
| Course Code:A110602T | Course Title: **Evolution of Geographical Thought** | |

Course Learning Outcomes
On completion of this course, learners will be able to:
- Understand the contribution of Indian and other renowned Geographers
- Understand the concept of evolution of Geographical Thought.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25+75 | Min. Passing Marks:40 |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| I | Nature and scope of Geography, Main Concepts of Geography, Early Origins of Geographical Thinking, Concepts of Distributions; Relationships, Interactions, Areal Differentiation and Spatial Organization in Geography. | 9 |
| II | Dualisms in Geography; Systematic Vs Regional Geography, Physical Vs Human Geography, The Myth and Reality about Dualisms.. Unity of Nature in Geography. | 8 |
| III | Geography in Ancient India. | 5 |
| IV | Contribution of Greek & Roman Geographers in Ancient World. | 7 |
| V | Contribution of Arab Geographers in Middle Ages, Renaissance Period in Europe. Renowned Travelers and Their Geographical Discoveries. | 8 |
| VI | German School of Thought - Kant, Humboldt, Ritter, Richthofen, Ratzel, Hettner; French School of Thought - Contribution of Blache & Brunhes. | 8 |
| VII | Soviet Geographers, American School - Contribution of Semple, Huntington & Carl Sauer. British School - Contribution of Mackinder, Herbertson & L.D. Stamp. | 7 |
| VIII | Paradigms in Geography, Thomas Kuhn Theory about the Growth and Development of Science. Application of Kuhn Model in Geography. | 8 |

**Suggested Readings:**


1. Ali, S.M. (1960): Arab Geography, Institute of Islamic Studies, Aligarh Muslim University,Aligarh, First Edition.
2. Daniel, P., Bradshaw, M., Shaw, D. and Sidaway, J. (2000): Human Geography. Issues for the 21stCentury. Prentice Hall, London.
3. Diddee, J. (ed.) (1990): Indian Geography, Institute of Indian Geographers, Pune, first edition.
4. Dikshit, R. D. (2003): Geographical Thought. A Critical History of Ideas. Prentice-Hall of India,New Delhi. (in English and Hindi).
5. Dube, B. (1967): Geographical Concepts in Ancient India, National Geographical Society of India,Varanasi
6. Getice, A., Getis, J. and Fellman, J. D. (2007): Introduction to Geography. 10th edition. McGrawHill, New York.
7. Hartshorne, R. (1959): Perspective on the Nature of Geography, John Murray, London
8. Harvey, D. (1969): Explanations in Geography. Arnold, London.
9. Holt-Jensen, A. (1980): Geography: Its History and Concepts. Harper and Row Publishers, London.
10. Husain, Majid. (2002): Evolution of Geographical Thought, Rawat Publications, Jaipur.
11. Johnston, R., Gregory, D., Pratt, G., Watts, M. and Whatmore, S. (2003): The Dictionary of HumanGeography. Blackwell Publishers, Oxford. 5th edition.
12. Johnston, R. and Sidaway, J.D. (2004): Geography and Geographers: Anglo-American HumanGeography Since 1945, Arnold Publishers, London.
13. Rawling, E. and Daugherty, R. (eds.) (2005): Geography into the Twenty-first Century. 2nd edition.John Wiley and Sons, Chichester.
14. Taylor, G. (ed.) (1953): Geography in the Twentieth Century. Methuen and Company, London.


Suggested Continuous Evaluation Methods:
Assignment / test / Quiz( MCQ) / Seminar/ Presentation

Suggested equivalent online courses:
Courses on Swayam / MOOCs
https://onlinecourses.swayam2.ac.in/cec21_lg06/preview

**BA 3rd Year, Sem. VI,**
**Course III**
**(Practical)**

| Program/Class: Degree/BA | Year: Third | Semester: Sixth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110603P | Course Title: **Remote Sensing and GIS** | |

Course Learning Outcomes
On completion of this course, learners will be able to:

- Understand and Conceptualize Remote Sensing and GIS Technique
- Understand the use of various image processing Software
- Basic idea of Geographical Information System

| Credits: 2 | Core Compulsory |
|---|---|
| Max. Marks: 25+75 | Min. Passing Marks:40 |

Total No. of Lectures-Tutorials-Practical (in hours per week): P-2/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| I | Overview of Image Processing & GIS Packages (Including open source Software's): ARC GIS, ERDAS, MAP INFO, ILWIS, GEOMEDIA, IDRISI, GRASS, SAGA, QGIS etc. | 3 |
| II | Geo-Referencing of Maps, Coordinate System and Projections in GIS Software's, Creation of Point, Line and Polygon Files and Features. Preparation of Maps with Legend, Scale, North Arrow etc and Export of Map in Various Formats | 10 |
| III | Creation of Shape File in GIS Software's. GIS Data Structures: Types (Spatial and Non-spatial), Raster and Vector Data Structure.. | 7 |
| IV | Downloading of Remote Sensing Images from Various Online Platforms (like Bhuvan, USGS, ASF, Copernicus etc). Land use Classification (Supervised and Un-supervised) Using Downloaded Images. | 10 |

**Suggested Readings:**


1. Curran, P.J. (1985): Principles of Remote Sensing, Longman, London
2. Chaunial, D. D. (2004): Remote Sensing and Geographical Information System (in Hindi), ShardaPustak Bhawan, Allahabad
3. Cracknell, A. and Ladson, H. (1990): Remote Sensing Year Book. Taylor and Francis, London.
4. Curran, P.J. (1985): Principles of Remote Sensing. Longman, London.
5. Deekshatulu, B.L. and Rajan, Y.S. (ed.) (1984): Remote Sensing. Indian Academy of Science,Bangalore.
6. Floyd, F. and Sabins, Jr. (1986): Remote Sensing: Principles and Interpretation. W H Freeman,New York.

7. Gautam, N.C. and Raghavswamy, V. (2004). Land Use/ Land Cover and Management Practices inIndia. B.S. Publication., Hyderabad.
8. Jensen, J.R. (2004): Remote Sensing of the Environment: An Earth Resource Perspective. PrenticeHall, Englewood Cliffs, New Jersey. Indian reprint available.
9. Lillesand, T.M. and Kiefer, R.W. (2000): Remote Sensing and Image Interpretation. John Wileyand Sons, New York.
10. Nag, P. (ed.) (1992): Thematic Cartography and Remote Sensing. Concept Publishing Company,New Delhi.
11. Rampal, K.K. (1999): Handbook of Aerial Photography and Interpretation. Concept Publishing.Company, New Delhi.
12. Campell, J. B. (2003): Introduction to Remote Sensing. 4th edition. Taylor and Francis, London.

**Note:** In Final Examination Student shall be examined by external and internal examiners.
Marks
Distribution: Written Exam, Viva, Practical File, Map Preparation using open source GIS, Image processing Software Use.

**BA 4th Year, Sem. VII,**
**Course I**
**(Theory)**

| Programme/Class: BA | Year: Fourth | Semester: Seventh |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110701TN | Course Title: **Geographical Thought: Concepts and Issues** | |

Course outcomes: Students will be able to understand;

- Gain comprehensive insights into the evolution and methodologies of geographical thought.
- Develop skills to critically evaluate philosophical and theoretical advancements in geography.
- Apply geographical theories to real-world challenges and independent research.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33 (Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | History of Geographical Thought, Changing Paradigm of Geography; Dualism in Geography: Systematic v/s Regional, Physical v/s Human. | 10 |
| **II** | Positivism in Geography, Quantitative Revolution and its Impact, Systems and Models in Geography. | 10 |
| **III** | Concept of Earth Surface, Concept of landscape, Concept of Region and its Typology and Concept of Spatial Organization. | 12 |
| **IV** | Radical Geography; Geography as a Science of Human Ecology; Behavioralism & Phenomenology in Geography. Post-modernism in Geography; Nature and Recent Trends in Geography; Progress of Geography in India. | 13 |

**Suggested Readings:**

1. Ali, S.M. (1960): Arab Geography, Institute of Islamic Studies, Aligarh Muslim University,Aligarh, First Edition.
2. Daniel, P., Bradshaw, M., Shaw, D. and Sidaway, J. (2000): Human Geography. Issues for the 21stCentury. Prentice Hall, London.
3. Diddee, J. (ed.) (1990): Indian Geography, Institute of Indian Geographers, Pune, first edition.
4. Dikshit, R. D. (2003): Geographical Thought. A Critical History of Ideas. Prentice-Hall of India,New Delhi. (in English and Hindi).
5. Dube, B. (1967): Geographical Concepts in Ancient India, National Geographical Society of

India, Varanasi
6. Getice, A., Getis, J. and Fellman, J. D. (2007): Introduction to Geography. 10th edition. McGrawHill, New York.
7. Hartshorne, R. (1959): Perspective on the Nature of Geography, John Murray, London
8. Harvey, D. (1969): Explanations in Geography. Arnold, London.
9. Holt-Jensen, A. (1980): Geography: Its History and Concepts. Harper and Row Publishers, London.
10. Husain, Majid. (2002): Evolution of Geographical Thought, Rawat Publications, Jaipur.
11. Johnston, R., Gregory, D., Pratt, G., Watts, M. and Whatmore, S. (2003): The Dictionary of Human Geography. Blackwell Publishers, Oxford. 5th edition.
12. Johnston, R. and Sidaway, J.D. (2004): Geography and Geographers: Anglo-American Human Geography Since 1945, Arnold Publishers, London.
13. Rawling, E. and Daugherty, R. (eds.) (2005): Geography into the Twenty-first Century. 2nd edition. John Wiley and Sons, Chichester.
14. Taylor, G. (ed.) (1953): Geography in the Twentieth Century. Methuen and Company, London.

**BA 4th Year, Sem. VII**
**Course II**
**(Theory)**

| Program/Class: BA | Year: Fourth | Semester: Seventh |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110702TN | Course Title: **Advanced Geography of India** | |

Course Learning Outcomes: - On completion of this course, learners will be able:

- To understand the physical structure of India and its Population Characteristics.
- To understand the natural and Man-made Resources and their interrelationship.
- To understand the physical, cultural, and economic characteristics of India.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Introduction. Making of India through geological times, structure and relief; Drainage systems and watersheds; Physiographic divisions; Climate characteristics: mechanism of the Indian Monsoon; Forests: types, distribution and utilization. | 10 |
| **II** | Population Characteristics. Population growth: trends and pattern; Population: distribution and density; Ageing of population; Sex and literacy differentials; Ethnic groups; Trends of urbanization; National population policy - 2000. | 10 |
| **III** | Agricultural Scene. Agricultural characteristics and trends; Land holdings, land tenure, land consolidation and land reforms; Infrastructure: irrigation, power, fertilizer, HYV seeds and farm technology; Green, white, blue and yellow revolutions. | 12 |
| **IV** | Industrial Resource Base. Regional distribution and development potentials of mineral and power resources; New industrial policy: Globalization and liberalization; Industrial complexes and industrial regions; Transport development: rail and road; Geographical regions; Detailed study of the Middle Ganga plain and Karnataka plateau region. | 13 |

**Suggested Readings:**


1. Chapman, G. and Baker, K.M. (eds.) (1992): The Changing Geography of Asia. Routledge, London.
2. Farmer, B.H. (1983): Introduction to South Asia. Methuen and Company Ltd. and Company Ltd., London.
3. Ganguly, S. and Neil, DeVotta (eds.) (2003): Understanding Contemporary India. Lynne Reinner Publishers., Boulder and London.
4. Gole, P. N. (2001): Nature Conservation and Sustainable Development in India. Rawat Publications, Jaipur and New Delhi.
5. Johnson, B. L. C. (ed.) (2001): Geographical Dictionary of India. Vision Books, New Delhi.
6. Johnson, B.L.C. (1983): Development in South Asia. Penguin Books, Harmonsworth.

7. Khullar, D. R. (2006): India. A Comprehensive Geography. Kalyani Publishers., New Delhi. 144.
8. Krishnan, M. S. (1968): Geology of India and Burma. 4th edition. Higgin Bothams Private Ltd., Madras.
9. Nag, P. and Gupta, S. S. (1992): Geography of India. Concept Publishing. Company, New Delhi.
10. Sharma, T. C. (2003): India: Economic and Commercial Geography. Vikas Publication., New
Delhi.
11. Singh, J. (2003): India: A Comprehensive and Systematic Geography. Gyanodaya Prakashan,
Gorakhpur.
12. Singh, R. L. (ed.) (1971): India. A Regional Geography. National Geographical Society of India, Varanasi.
13. Spate, O.H.K., Learmonth, A.T.A. and Farmer, B. H. (1979): India and Pakistan. Methuen and Company Ltd. and Company Ltd., London.
14. Subbarao, B. (1959): The Personality of India. University of Baroda Press, Baroda.
15. Sukhwal, B.L. (1987): India. Economic Resource Base and Contemporary Political Patterns. Sterling Publication, New Delhi.
16. Tirtha, R. (2002): Geography of India. Rawat Publications., Jaipur and New Delhi.
17. Tiwari, R. C. (2007): Geography of India, Prayag Pustak Bhawan, Allahabad
18. Wadia, D. N. (1959): Geology of India. MacMillan and Company, London and Madras.

**BA 4th Year, Sem. VII**
**Course III**
**(Theory)**

| Programme/Class: BA | Year: Fourth | Semester: Seventh |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110703TN | Course Title: **Geomorphology - Theories and Concepts** | |

Course outcomes: Students will be able to understand;

- Understand core geomorphological theories and principles to analyze landform development.
- Develop advanced skills in analyzing and interpreting geomorphological processes and landscapes.
- Apply modern and traditional geomorphological methods to conduct empirical research.
- Utilize theoretical knowledge in practical scenarios.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks: 33 (Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Meaning, Scope and Fundamental Concepts of Geomorphology, Evolution of Geomorphic Ideas during Medieval and Modern Period. | 10 |
| **II** | Geological Time Scale, Karst and Coastal Landform, Models of Landscape Developed by W.M. Davis, W. Penk and L.C. King. | 10 |
| **III** | Earth Movements- Endogenetic and Exogenetic Forces, Concept of Plate Tectonics, Mountain Building, Vulcanicity and Earthquakes. | 13 |
| **IV** | Morphometric Analysis of Relief Hypsometric Curve, Altimetric Frequency Curve, Histogram and Clinographic Curve; Strahler's Method of Drainage Ordering, Frequency and Density of the Drainage. | 12 |

**Suggested Readings:**


1. Singh, Savindra (2018), Physical Geography (Eng./Hindi) Allahabad, India: PrayagPustak
2. Huggett, R.J. (2007): *Fundamentals of Geomorphology*. New York, U.S.A.: Routledge.
3. Khullar, D.R. (2012). *Physical Geography*. New Delhi. India: Kalyani Publishers.
4. Strahler, A. H. and Strahler, A N. (2001): *Modern Physical Geography* (4/E). New York, U.S.A.: John Wiley and Sons, Inc.
5. Thornbury, W. D. (2004): *Principal of Geomorphology*. New York, U.S.A.: Wiley.
6. Bloom, A. L. (2003). Geomorphology: A Systematic Analysis of Late Cenozoic Landforms, New Delhi, India: Prentice-Hall of India

7. Kale V. S. and Gupta. A. 2001. Introduction to Geomorphology, Orient Longman Limited,Calcutta.
8. Keary, P. and Vine, M. 1997. Global Tectonics, 2nd edition, Blackwell Scientific Publications, Oxford.
9. King. C. A. M. 1972. Beaches and Coast, Edward Arnold (Publishers) Ltd., London.
10. Knighton, D.1998: Fluvial Forms and Processes: A New Perspective, Arnold, London.
11. Morisawa, M. 1985. Rivers, Longman, London.
12. Murthy, K.S. 1998. Watershed Management in India, 3rd edition, Wiely Eastern Ltd./ NEW AGE INTERNATIONAL Ltd., New Delhi

**BA 4th Year, Sem. VII**
**Course IV**
**(Theory)**

**(Only for BA Honours)**

| Program/Class : BA | Year: Fourth | Semester: Seventh |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110704TN | Course Title**: Research Methodology** | |

Course Learning Outcomes:- On completion of this course, learners will be able to:

- Master the fundamentals of research design, including qualitative, quantitative, and mixed methods approaches.
- Develop proficiency in data collection techniques and data analysis tools specific to geographical research.
- Enhance the ability to critically evaluate research findings and methodologies in the field of geography.
- Prepare to conduct independent geographical research, applying ethical considerations and methodological rigour.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33 (Minimum 25 Marks in External) |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w | |

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Introduction in Geographical Research: Concept, Significance, Types and Approaches to Research in Geography, Literature Survey, Research Ethics, Limitations | 12 |
| **II** | Research Design: Steps, Identification and formulation of Research Problem; Research questions, Aims and Objectives; Sampling Techniques | 10 |
| **III** | Data Sources and Methods of Data Collection: Nature of Data qualitative and quantitative, Primary Data: Field survey, Selection of sample, Questionnaire, Interview, Observation, PRA; Secondary Data | 13 |
| **IV** | Data Analysis: Processing of Data; tabulation, graphic presentation and analysis; Referencing. | 10 |

**Suggested Readings:**


1. Ahuja, R. (2001). Research Methodology. Kolkata: Rawat Publication.
2. Das, D. L. (2000). Practice of Social Research. New Delhi: Rawat Publication.
3. David, F. E. (2000). Scientific Method For Ecological Research. U.K: Cambridge.
4. Gibaldi, J., &Achtert, W. S. (1989). MLA handbook for writers of research papers. New Delhi: Affiliated East West Press Private Limited.
5. Harper, C., & Marcus, R. (2007). Research for Development :A practical Guide . New Delhi: Vistaar Publication.
6. Kothari, C. (2009). Research Methodology: Methods and Techniques. Kolkata: New Age

International Publishers.
7. Misra, H., & Singh, V. ... (1998). Research Methodology in Geography: Social and PolicyDimension. New Delhi: Rawat Publication.
8. Misra, R. (2001). Research Methodology: A handbook. New Delhi: Concept Publishing Company.
9. Mondal, R. Research Methodology for Social Scientist. Concept Publication.
10. Panneerselvam, R. (2009). Research Methodology. Learning private limited.
11. Raza, M. (1979). Survey of Research in Geography. Calcutta: Allied Publishers Private Limited.
12. Singh, K. (2007). Quantitative Social Research Methods. New Delhi: Sage Publication.
13. Somekh, B., & Lewin, C. (2005). Research Methods in the Social Science. New Delhi: Vistaar Publication

**BA 4th Year, Sem. VII**
**Course IV**
**(Research Project)**
**(Only for BA Honours with Research )**

| Program/Class: BA | Year: Fourth | Semester: Seventh |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110708RN | Course Title: **Dissertation (Progressive)** | |

Course Learning Outcomes:- On completion of this course, learners will be able to:

- Identify significant gaps in existing geographic knowledge and formulate relevant, feasible research questions.
- Design a robust research methodology that employs appropriate geographic techniques to address the identified questions.
- Execute effective data collection and analysis, demonstrating proficiency in using advanced tools and software specific to geographic research.
- Produce a scholarly Dissertation that clearly communicates the study's findings, methods, and implications, and effectively present the research in a professional academic setting.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:40<br>(Minimum 30 Marks in External) |

Dissertation Guidelines

- In the beginning of **7th semester,** the Dissertation supervisor shall be assigned to students.
- Dissertation shall be allotted by the departmental committee on the basis of the student's research interests and the specialization of a faculty member.
- By the end of **7th sem** , a synopsis of the Research Project shall be submitted by the student and will be approved by the departmental committee.
- Students will continue to work on assigned research projects during the **Eighth Semester** under the guidance of the Supervisor.
- Students will submit their final dissertations by the end of Eighth semester teaching.
- Synopsis Must Include the following;
  1. Title of Research Project
  2. Table of Content
  3. Introduction
  4. Review of the Literature
  5. Study Area
  6. Amis and Objective
  7. Hypothesis (If required)
  8. Methodology
  9. Tentative Chapterisation
  10. Conclusion
  11. References

**BA 4th Year, Sem. VII**
**Course V**
**(Practical)**

| Program/Class: BA | Year: Fourth | Semester: Seventh |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110705PN | Course Title: **Practical and Excursion Tour** | |

Course Learning Outcomes- On completion of this course, learners will be able to:

- Learn fundamentals of Surveying and Projections.
- The variation among geographical locations.
- Interaction with people with different natural and cultural settings.
- Study physical and human geography of area being visited.
- Learn to prepare tour report.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w | |

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Plain Table Survey: Intersection, Resection (Two Point Problem, Three Point Problem), Indian Pattern Clinometer. | 12 |
| **II** | Projections: Meaning, Classification and Choice of Projections; Construction and Characteristic of Projections-Polyconic, Galls, Equatorial Zenithal Projection - Gnomonic, Sinusoidal, Mollweide and their interrupted cases, International Projection. | 22 |
| **III & IV** | Geographical Excursion: How to prepare a field book, steps and methods for preparing a tour report, methodology for research in a field trip, various aspects of study in a field trip, and preparation of surveying in a field trip. (22 lectures shall be taken before and during the field trip by Tour Incharge) | 11 |

***External Assessment-**

a. 30 Marks for Practical Exam
b. 30 Marks for Excursion and Excursion Report
c. 15 Marks VIVA (On the basis of Practical and Excursion Report)

**Suggested Continuous Evaluation Methods:**

The following shall be the guidelines and structure of the Educational tour;

**Geographical Excursion Committee**

1. All faculty members shall organise geographical excursions as **'tour in-charge'** in rotation according to the departmental seniority list.
2. The 'Geographical Excursion Committee' will be headed by the Principal of the colleges. The

tour in-charge shall act as convener of the committee and shall convene a meeting at the beginning of the session or semester. All other teachers of the department shall be members of the committee. Three meritorious students based on the last available examination result shall be invited by the tour in-charge to participate in the meetings as members of the committee.

3. Committee shall:
   a) Review the tour plan.
   b) Confirm that all arrangements are made before tour departure.
   c) Listen to students' opinions and give recommendations to the tour in-charge accordingly.
   d) Review the tour's academic nature and evaluate the day-wise tour plan and academic activity as submitted by the Tour in-charge.

**Structure of the tour party**

1. For 10 or less than 10 students, one faculty member with one non-teaching staff shall accompany the Tour party. For 11 to 20 students, two faculty members with one non-teaching staff shall accompany the Tour party. For 21 to 35 students, three faculty members with one non-teaching staff shall accompany the Tour party. If two/three faculty members are required for the tour, the second and third faculty members shall be selected on the recommendation of the tour in-charge. If the number of students is more than 35, a separate tour party shall be constituted in a similar manner.
2. If female students are also participating in the tour, one of the staff must be female (teaching or non-teaching). In case of unavailability of female staff to accompany the tour from the subject (Geography), the head of the Geographical Excursion Committee can nominate any other female teaching or non-teaching staff of the college.

**Responsibility of tour in-charge**

1. The tour shall last at least 6 days at a location with inter-region variation.
2. The tour in-charge shall submit tentative day-wise activity reports in advance to the head of the Geographical Excursion Committee.
3. The tour in-charge shall coordinate with Institutes/Colleges/ Universities/Research institutes etc, in a location where the tour is being planned for the following activities;
   a) Interaction of students.
   b) Lectures on the area's various local physical and cultural attributes by the experts.
   c) Local visits with faculty members who understand the area academically.
4. Lectures by tour in-charge on physical and human characteristics of the area being visited for an educational tour.
5. Survey students with at least one instrument like Dumpy Level, Sextant, Theodolite, GPS, etc.
6. Questionnaire survey on various socio-cultural or any other aspects. The questionnaire must be prepared in advance and shall be shared during the Geographical Excursion Committee meeting.
7. Tour in-charge shall collect undertaking from all students regarding any misshaping or casualty, which shall be counter signed by their guardian.
8. The tour in-charge will prepare a list of students accompanying the tour with their information like mobile number, address, guardian contact information and one recent colour photo. One copy will also be submitted to the college Principal.

9. Teachers shall always try to minimise tour expenditure of students by;
    a) Using concession train reservations and avoiding buses if possible.
    b) Making stay arrangements for students in advance in youth hostels/lodges/guest houses, etc.
    c) Try to visit a few important locations only with the objective of spot study and avoiding unnecessary travel for sightseeing.
10. After the completion of the tour, there shall be a presentation by students regarding learning outcomes and experiences under the supervision of the tour in-charge. The presentation shall be attended by Geographical Excursion Committee members along with other faculty members, staff, students, etc.
11. All students shall submit a tour report under the supervision of the Tour in-charge for evaluation. The tour report shall portray all activities conducted and places visited for the purposes of the study.
12. In case of any incident/injury where one or more than one student can't join the tour party on the return journey. One teaching/non-teaching staff member shall stay with the student until the student's guardian arrives or an alternative arrangement is not made by the college. In casethe tour in-charge stays, the other teacher/staff member shall act as tour in-charge for the remaining tour period.TA, DA and other expenses shall be paid by the college for excess days of stay.

**Exemption of Students from Tour**

1. Tour can be exempted in very special circumstances by the recommendation of the Geographical Excursion Committee. Exempted students will prepare local tour reports based on his/her own local tour visits. The report shall be prepared under the supervision of the tour in-charge.

**TA, DA and other expenses**

The TA, DA and other expenses of teachers and attendants shall be met out by the college as admissible to their cadre as per government rules.

**BA 4th Year, Sem. VIII**
**Course I**
**(Theory)**

| Program/Class: BA | Year: Fourth | Semester: Eighth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110801TN | Course Title: **Regional Planning and Development** | |

Course Learning Outcomes:- On completion of this course, learners will be able:

- To understand the Concept, Nature, Meaning and Scope of Human Geography
- To understand the natural and Cultural Changes in and around the Human Environment and their interrelationship.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks: 33 (Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Concept of Regional Development: Changing paradigm, Sustainable development. | 10 |
| **II** | Indian Thoughts of Development: Ideas of Gandhi, Census of India and NITI Aayog. Identification of Regional Disparities: spatial patterns and temporal trends. | 10 |
| **III** | Regionalization for Sustainable Development: area development programmes, agro - climatic regions, metropolitan regions. | 12 |
| **IV** | Regional development strategies include growth centres, special economic zones, a watershed approach, and micro- level planning.Human Development Index. | 13 |

**Suggested Readings:**


1. Boudeville,J.R (1966): Problems of Regional Economic Planning, Edinburgh University Press, Edinburgh.
2. Chand.M, Puri.V.K, (1983): Regional Planning in India, Allied Publishers, New Delhi.
3. Freeman, T. (1974). Geography and Planning. London: Hutchinson University Library.
4. Gill,R.(1975):Economic Development :Past and Present, Prentice-Hall of India,New Delhi.
5. Glasson,J.(1975): An Introduction to Regional Planning, Hutchinson and Co.,London.
6. Gottman, J., & Harper, R. A. (1967). Metropolis on The Move. New York: John Willy & Sons.
7. Hall, P. (1974). Urban and Regional Planning. New Zealand: Penguin Books.
8. Hall, P. (2002). Urban and Regional Planning. New York: Rouledge.

Husain, M. (1994). Regional Geography. New Delhi: Anmol Publication Pvt. Ltd. Company, New Delhi

**BA 4th Year, Sem. VIII**
**Course II**
**(Theory)**

| Programme/Class: BA | Year: Fourth | Semester: Eighth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110802TN | Course Title: **Climatology** | |

Course outcomes: Students will be able to understand:-

- Understand the fundamental principles and concepts of climatology, including atmospheric processes and climate systems.
- Analyze climatic data and models to interpret patterns and predict future climatic conditions.
- Apply climatological knowledge to assess the impacts of climate on various environments and societies.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w | |

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Definition and Scope of Climatology, Heat Balance of the Earth; Origin of Monsoon - Recent Concepts. | 10 |
| **II** | Critical Appraisal of Climatic Classifications by - Koppen, Thornthwaite and Trewartha. | 11 |
| **III** | Applied Climatology - Climate and Landforms, Climate and Natural Vegetation, Climate and Agriculture, Climate and House Types & Settlement. | 12 |
| **IV** | Human Impact on Climate - Green House Effect, Ozone Depletion.<br>Or<br>Regional Climatology at Macro, Meso, Micro level; Urban Climatology; Heat Island; Weather Forecasting. | 12 |

**Suggested Readings :-**


1. Barry, R.G. and Chorley P J.; Atmosphere, Weather and Climate, Routledge, London and New York, 1998.
2.Critchfield, J H.: General Climatology, Prentice Hall, India, New Delhi, 1993
3.1 Das, P.K : Monsoons, National Book Trust, New Delhi, 1987.
4. Fein, J.S. and Stephens, P.N.: Monsoons, Wiley interscience, 1987.
5.India Met. Deptt.. Climatological Tables of Observations in India. Govt, of India, 1968.
6.Lai, D.S.: Climatology, Chaitanya Publications, Allahabad, 1986.
7.Lydolph, PE : The Climate of the Earth, Rowman, 1985.

8. Menon, PA. Our Weather, N.B.T., New Delhi, 1989.
9. Peterson, S: Introduction to Meteorology, Me Graw Hill Book, London, 1969.
10. Robinson, P.J. and Henderson S.: Contemporary Climatology, Henlow, 1999.
11. Thompson, R D. and Perry, A (ed).: Applied Climatology, Principles and Practice, Routledge, London, 1997.

**BA 4th Year, Sem. VIII**
**Course III**
**(Theory)**

| Program/Class: BA | Year: Fourth | Semester: Eighth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110803TN | Course Title: **OCEANOGRAPHY** | |

Course Learning Outcomes- On completion of this course, learners will be able to:

- Understand the fundamental principles of physical, chemical, biological, and geological oceanography.
- Analyse marine and coastal processes using advanced oceanographic methods and technologies.
- Assess the impact of human activities and natural phenomena on oceanic and coastal environments.
- Apply oceanographic knowledge to marine resource management, conservation, and policy development.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Oceanography - nature, scope and development, distribution of land and water, Ocean bottom topography, bottom relief of Pacific, Atlantic and Indian Ocean. | 12 |
| **II** | Characteristics of Ocean water: temperature - distribution, salinity - composition, source and distribution, density of sea water. | 10 |
| **III** | Movement of ocean water, currents causes and its characteristics, currents of Atlantic, Indian and Pacific Ocean, Waves, tides and theories of its origin. | 12 |
| **IV** | Ocean deposits & coral reefs, Sea Level Change: Causes and consequences, Importance of EEZ and CRZ; Marine Pollution and Its Effects. | 11 |

**Suggested Readings :-**


1. Davis, R.J.A. (1986): Oceanography - An Introduction of the Marine Environment, Win C. Brown, Iowa
2. Day, T. (2006): Oceans, Chelsea House, New York
3. Erickson, J. 2003): Marine Geology: Exploring the New Frontiers of the Ocean, Facts on File, Inc., New York
4. Garrison, T. (2009): Essentials of Oceanography, Brooks/Cole, Belmont, California
5. Ilyin, A.V. (2003): Evolution of the Ocean Floor Morphostructure - Actualistic Model, in Evans, I.S., Dikau, R. Tokunaga, E., Ohmori, H. and Hirano, M. (eds.) Concepts and Modelling in Geomorphology: International Perspectives, Terrapub, Tokyo, pp. 43-59
6. King, C.A. (1962): Oceanography for Geographers, Edward Arnold, New York

7. Pinet, P.R. (2009): Invitation to Oceanography, Jones and Bartlett Publishers, Sudbury, Massachusetts
8. Robert, C.M. (2009): Global Sedimentology of the Ocean: An Interplay between Geodynamics and the Palaeo environment, Elsevier, Amsterdam
9. Stahler, A.N. and Stahler A.N. (1997): Geography and Man's Environment, John Wiley and Sons, New York
10. Thorpe, S.A., Steele, J.H., Turekian, K.K. (eds.) (2009): Elements of Physical Oceanography, Academic Press, London
11. Thurnman, H.V. (1978): Introduction to Oceanography, Charles E. Merrill Pub. Co., London
12. King, C.A.M, Oceanography
13. Suredrup, H.V, The Ocean
14. Hukku and Sharma, R.C: Oceanography for Geographers.
15. Lai, D.S.: Climatology and Oceanography.

**BA 4th Year, Sem. VIII**
**Course IV (A)**
**(Theory)**
**(Only for BA Honours)**

| Program/Class: BA | Year: Fourth | Semester: Eighth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110804TN | Course Title: **DISASTER MANAGEMENT** | |

Course Learning Outcomes :- On completion of this course, learners will be able to:

- Understand the fundamentals of disaster risk reduction, emergency response, and recovery processes.
- Analyse vulnerabilities and hazards to develop effective disaster preparedness and mitigation strategies.
- Evaluate the impact of disasters on communities and environments to improve resilience and adaptation measures.
- Apply principles of disaster management in planning, policy-making, and community engagement to reduce disaster risks.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Disasters: Definition and Concept, Types of EnvironmentalHazards and Disasters | 8 |
| **II** | Man Induced hazards and Disaster Earthquake, Tsunami, Landslides, Cyclones, Floods, Drought, Desertification and its Distribution & Mapping. | 11 |
| **III** | Man-made Disasters: Causes, Impact, Distribution and Mapping, Response and Mitigation to Disasters. Mitigation and Preparedness, NDMA and NIDM; Indigenous Knowledge and Community-based Disaster Management; Do's and Don'ts During and Post Disasters. | 14 |
| **IV** | Harnessing Information and Technology: Application of GIS, G.P.S and Remote Sensing in Disaster Management. National Disaster Management Plan | 12 |

**Suggested Readings: -**


1. Government of India. (2011). Disaster Management in India. Delhi, India: Ministry of Home Affairs.
2. Singh, Savendra (2019) Pryavaran Bhugol, Pravalika Publication, Allahabad
3. Kapur, A. (2010). Vulnerable India: A Geographical Study of Disasters. Delhi, India: Sage Publication.
4. Singh, Savendra (2019) Apada Prabandhan, Pravalika Publication, Allahabad.
5. Ramkumar, M. (2009). Geological Hazards: Causes, Consequences and Methods of Containment. New Delhi, India: New India Publishing Agency.
6. Climate Change: Understanding Climate Change; Green House Gases and Global Warming; Global Climatic Assessment- IPCC

7. Climate Change and Vulnerability: Physical Vulnerability; Economic Vulnerability; Social Vulnerability.
8. Impact of Climate Change: Agriculture and Water; Flora and Fauna; Human Health
9. Adaptation and Mitigation: Global Initiatives with Particular Reference to South Asia.
10. The Climate Change Policy Framework: Global Initiatives UNFCCC and COPs; National and Local Action Plan on Climate Change.
11. Government of India. (2008). Vulnerability Atlas of India. New Delhi, India: Building Materials & Technology Promotion Council, Ministry of Urban Development, Government of India

**BA 4th Year, Sem. VIII**
**Course IV (B)**
**(Theory)**
**(Only for BA Honours)**

| Program/Class: BA | Year: Fourth | Semester: Eighth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110805TN | Course Title: **SOCIAL GEOGRAPHY** | |

Course Learning Outcomes :- On completion of this course, learners will be able to:

- Understand the diverse social structures, cultural patterns, and spatial distributions across India.
- Analyze the effects of socio-economic factors on spatial interactions and regional developments within India.
- Evaluate the impact of historical and contemporary social policies on the geographical distribution of communities.
- Apply social geographic concepts to address issues like urbanization, migration, and regional disparities in India.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Social Geography of India: Nature and Scope, Indian society - a study of unity in diversity, Centripetal and centrifugal forces, Aryavarta, Dakshinpatha, Narmada Chota - Nagpur axis, regional identities and regionalism: A curse or a boon. | 12 |
| **II** | Historical Bases of Socio cultural status of India: Elements of development in socio cultural regions; Sixteen Mahajanapads and Mughal Empire: Socio-cultural changes and unity of india, Impact of Mewar Kingdom and British Empire on the hearts of Indian People for the quest of Independence. | 14 |
| **III** | Geographical factors explaining the emergence of different religions in India. | 8 |
| **IV** | Geographic analysis of caste and tribe, Development of Different ancient languages, caste and settlement morphology, Various relations and mutual communication promoting the unity of India. | 11 |

**Suggested Readings :-**


1. Ahmad, Aijazuddin., 1999, Social Geography, Rawat Publication, New Delhi
2. Ahuja, Ram, 1999, Society in India, Rawat Publication, Delhi
3. Ahuja, Ram, Social Problems in India, Rawat Publication, New Delhi
4. Banerjee Guha, S. ed. (2004) Space, Society & Geography, Rawat Publication, Delhi
5. Bardhan , P.,2003,Poverty,Age Structure & Political Economy in India, Oxford Univessity Press

6. Biswas, A.K., Jortajada, C.,2006, Appraising Sustainable Development, Oxford University
7. Blij. H.J., Murphy. Alexander B, Human Geography, 1807, Wiley Publishers
8. Bottomore, T.B., Sociology, Unwin University Books
9. Chaudhuri Sachin, Society and Change, Oxford University Press, Bombay
10. Daniels, P., Bradshaw, M., Sidaway, J., 2003, Human Geography, Pearson Education (Singapore) Pte. Ltd., Delhi.
11. Dhanagare, D.N.,2004, Themes and Perspectives in Indian Sociology, Rawat Publication, Delhi
12. Dohrs, I., Sommers, L.,1967, Cultural Geography, Thomas Crowell Company
13. Fellmann, J.D., Getis, A., Getis, J.,2000, Human Geography- Landscape of Human Activity, McGraw Hill

**BA 4th Year, Sem. VIII**
**Course IV (C)**
**(Theory)**
**(Only for BA Honours)**

| Program/Class: BA | Year: Fourth | Semester: Eighth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110806TN | Course Title: **POLITICAL GEOGRAPHY** | |

Course Learning Outcomes :- On completion of this course, learners will be able to:

- Understand key concepts and theories in political geography, including territoriality, sovereignty, and geopolitics.
- Analyze the influence of geographical factors on political behaviours, boundaries, and power dynamics.
- Assess the impact of political decisions on spatial relationships and territorial conflicts.
- Apply knowledge of political geography to real-world issues such as electoral geographies, international relations, and conflict resolution.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Definition and Historical Development of Political Geography, Recent Trends and Development in Political Geography, Distinction between Geo-Politics and Political Geography. | 11 |
| **II** | Definition and Components of State, Definition of Nation and Nation State, Geographical factors of state: Physical, spatial, Human & Economic. Definition of Boundary and Frontiers and their Classification. Heartland and Rimland Theory. | 12 |
| **III** | Definition and Components of State, Definition of Nation and Nation State, Geographical factors of state: Physical, spatial, Human & Economic. Definition of Boundary and Frontiers and their Classification. | 12 |
| **IV** | Indian concepts of geopolitics towards the approach of "Vasudhaiva Kutumbakam". Geopolitical significance of the Indian Ocean; Role of third world countries; Regional co-operation; Geopolitical study of South-East Asia and South Asia, Politics of World Resources. | 10 |

**Suggested Readings :-**


1. Agnew, John (1997) Political Geography: A Reader, Arnold, London
2. Adhikari, Sudeepta (2002) Political Geography, Rawat Publications, New Delhi
3. Pounds, Norman J.G. (1963) Political Geography, Mc Graw Hill Book Company
4. Husain Majid (1994) Political Geography, Anmol Publications Pvt. Ltd.
5. Cox, Kevin R. (2002) Political Geography: Territory, State, and Society, BlackwellPublishers, Oxford.

6. Shrivastava, R.M. – Rajnitik Bhoogol, Allahabad.
7. Chauhan, P.R.: Rajnitik Bhoogol, Gorakhpur.
8. Dixit, S.K.: Rajnitik Bhoogol, Gorakhpur.
9. Dixit, S.K. – Electoral Geography, Varanasi.
10. Dwivedi, R.L.: Political Geography, Allahabad.

**BA 4th Year, Sem. VIII**
**Course IV**
**(Research Project)**
**(Only for BA Honours with Research )**

<table>
<tr><td>Program/Class: BA</td><td>Year: Fourth</td><td>Semester: Eighth</td></tr>
<tr><td colspan="3">Subject: Geography</td></tr>
<tr><td>Course Code:<br>A110809RN</td><td colspan="2">Course Title: Dissertation (Submitted)</td></tr>
<tr><td colspan="3">Course Learning Outcomes:- On completion of this course, learners will be able to:<ul><li>Identify significant gaps in existing geographic knowledge and formulate relevant, feasible research questions.</li><li>Design a robust research methodology that employs appropriate geographic techniques to address the identified questions.</li><li>Execute effective data collection and analysis, demonstrating proficiency in using advanced tools and software specific to geographic research.</li><li>Produce a scholarly Dissertation that clearly communicates the study's findings, methods, and implications, and effectively present the research in a professional academic setting.</li></ul></td></tr>
<tr><td colspan="2">Credits: 4</td><td>Core Compulsory</td></tr>
<tr><td colspan="2">Max. Marks: 25(Internal) +75(External)</td><td>Min. Passing Marks:40<br>(Minimum 30 Marks in External)</td></tr>
<tr><td colspan="3">Dissertation Guidelines</td></tr>
<tr><td colspan="3"><ul><li>Students will continue to work on assigned research projects during the Eighth Semester under the guidance of the Supervisor.</li><li>Students will submit their final dissertations by the end of Eighth semester teaching.</li></ul></td></tr>
</table>

**BA 4th Year, Sem. VIII**
**Course V**
**(Practical)**

| Program/Class: BA | Year: Fourth | Semester: Eighth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110807PN | Course Title: **Statistical Methods and Cartography** | |

Course Learning Outcomes:- On completion of this course, learners will be able to:

- Apply advanced cartographic techniques and tools for creating and interpreting maps.
- Understand and apply statistical methods to analyse and visualize geographical data effectively.
- Develop skills in integrating cartographic visualization with statistical analysis to address complex spatial questions.
- Apply cartographic and statistical knowledge to real-world geographic problem-solving and decision-making.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Statistical Methods: Collection, Processing and Management of Data; Measurement of Scale, Concept and Methods of Sampling; Correlation - Pearson's, Spearman's; Regression Analysis and Confidence Limit, Test of Significance; Chi-square and Student T-test. | 12 |
| **II** | Z score, Lorenz Curve and Gini's Coefficient, Location Quotient, Coefficient of Localization & Localization Curve, Nearest Neighbour Analysis, Network Analysis, Graph Techniques and Degree of Connectivity, Shape Analysis, Gravity Model, Retail Gravitation. | 12 |
| **III** | Cartograms - Climatic Diagrams, Rainfall Dispersion Diagram; Water Budget, Ergo-graph Climatic and Circular, Multiple Dot, Spherical Diagram, Traffic Flow, Land Utilization Maps | 10 |
| **IV** | Practical Record & Viva-Voce | 11 |

**Suggested Readings:**


1. Monkhouse, F. J. and Wilkinson, F.J. (1985): Maps and Diagrams. Methuen, London
2. Raisz, E. (1962): General Cartography. John Wiley and Sons, New York. 5th edition.
3. Sarkar, A. K. (1997): Practical Geography: A Systematic Approach. Orient Longman, Kolkata.
4. Sharma, J. P. (2001): Prayogik Bhugol., Rastogi Publication, Meerut 3rd. edition.
5. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions). Kalyani Publishers, New Delhi,.
6. Singh, L.R. (2006): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad.

**MA 1st Year, Sem. IX**
**Course I**
**(Theory)**

| Program/Class: MA | Year: First | Semester: Ninth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110901TN | Course Title: **Advance Remote Sensing and GIS** | |

Course Learning Outcomes- On completion of this course, learners will be able to:

- Learn advanced techniques in remote sensing and GIS for spatial data analysis.
- Enhance capability to interpret complex geospatial data and environmental patterns.
- Apply GIS and remote sensing tools to address and solve geographical and environmental issues.
- Innovate in using GIS and remote sensing technologies for sustainable planning and management.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Remote sensing principles, physics of electromagnetic radiation and its interaction with the atmosphere and earth surface materials. | 10 |
| **II** | Satellite platforms, Sensor technologies and their applications, with an emphasis on high-resolution and hyperspectral imaging systems. | 11 |
| **III** | Acquiring and processing remote sensing data, including pre-processing, image enhancements and classification. Emerging technologies such as drone-based remote sensing, LiDAR, and artificial intelligence in geospatial analysis. | 12 |
| **IV** | Basic concepts of GIS with a focus on spatial thinking, geographic problem-solving and decision-making processes. RS and GIS applications in areas like urban planning, environmental management, resource management and public health. | 12 |

**Suggested Readings:**


1. Choniyal, D D, (2016) Sudur Samvaden evam Bhogolic Suchna Pranali ke sighant, Sharda Pustak Bhavan, Allahabad.
2. Lillesand, T.M. and Kiefer, R.W. (2000): Remote Sensing and Image Interpretation. 4th edition. John Wiley and Sons, New York
3. Campbell, J.B. (2002): Introduction to Remote Sensing. 5th edition, Taylor and Francis, London.
4. Bhatta, B. (2010): Remote Sensing and GIS, Oxford University Press, New Delhi.
5. Nag Prithvish and Kudrat M. (1998): Digital Remote Sensing, Concept Publishing Company Private Limited.

6. Curran, P.J. (1985): Principles of Remote Sensing, Longman, London.
7. Campbell, J. B. 1996: Introduction to Remote Sensing, 2nd edition, Taylor & Francis, London.
8. Chaisman, N. 1992: Exploring Geographical Information Systems, John Wiley and Sons Inc., New York.
9. Lillesand, T.M. and Kiefer, R. W. 1994: Remote Sensing and Image Interpretation, 3rd edition, John Wiley and Sons, New York.
10. Marcolongo, B. And Mantorani, F. 1997: Photogeology: Remote Sensing Application in Earth Science, Oxford and IBH Pub. Pvt. Ltd., New Delhi.
11. Rajan, M.S. 1995: Space Today, 2nd edition, National Book Trust, New Delhi.
Rao, U.R. 1996: Space Technology for Sustainable Development, Tata McGraw-Hill, NewDelhi
12. Sabins, F.F., 1997: Remote Sensing: Principles and Applications, 3rd edition, W.H. Freeman & Company, New York.

**MA 1st Year, Sem. IX**

**Course II**
**(Theory)**

| Programme/Class: MA | Year: First | Semester: Ninth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110902TN | Course Title: **Population Geography** | |

Course outcomes: Students will be able to understand:-

Understand demographic concepts and analyze population distribution, composition, and change from a geographical perspective.

- Examine the spatial aspects of population dynamics, including migration patterns, urbanization, and demographic transitions.
- Assess the impacts of population changes on resource use, urban development, and environmental sustainability.
- Apply demographic analysis and spatial techniques to plan and manage population-related issues in diverse settings.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w | |

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Nature, scope, significance of population Geography and its recent trends. Sources of population data: The Census, Vital Registration and Other Sources. | 12 |
| **II** | Population Dynamics: Growth, fertility and mortality measurement. Theories of Growth: Malthusian theory, Social Capillary and demographic transition theory. Migration: types, determiners and consequences, patterns of international migration, Theories of Migration: Ravenstein and Lee's Laws. | 12 |
| **III** | Population Composition/ Characteristics: Sex Composition- measures, determinants and distribution. Declining Sex Ratio, Age composition: various systems of age groupings, determinants and distribution; population ageing, Occupational structure, determinants of the workforce, types of workers. | 11 |
| **IV** | Population and resources: Overpopulation, Underpopulation, Optimum population, Ackerman's scheme of Population-Resource regions, National Population Policy (NPP), 2000. | 10 |

**Suggested Readings:**

1. Ararwala and Sinha, 1977, India's Population Problems, Tata McGraw-Hill Publishing Co. Ltd., New Delhi
2. Bird, J., 1977: Centrality And Cities, Routledge, London.
3. Borooah, G.L., 1938, Population Geography of Assam, Mitali Publications.
4. Garnier, J. Beaujeu, 1966, Geography of Population, Commonwealth Printing Press Ltd.
5. Hassan, M. Izhar, 2005, Population Geography, Rawat Publications.
6. Singh, Ram Dayal, 1985, Population Structure of Indian Cities, Inter-India Publ., New Delhi.
7. Bhende, A. and Kanitkar, T. (2000): Principles of Population Studies, Himalaya Publishing House, Mumbai.
8. Chandna, R.C. (2010): A Geography of Population, Kalyani Publisher, New Delhi.
9. Clarke, J.I. (1992): Population Geography, Pergamon Press, Oxford.
10. Hassan, M.I. (2005): Population Geography, Rawat Publication, Jaipur.
11. Hornby, F. William and Jones, M. (1987): An Introduction to Population Geography, Cambridge University Press, Cambridge

**MA 1st Year, Sem. IX**
**Course III A**
**(Theory)**

| Programme/Class: MA | Year: First | Semester: Ninth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110903TN | Course Title: **Economic and Resource Geography** | |

Course outcomes: Students will be able to understand :-

- Understand the spatial distribution of economic activities across India and the factors influencing these patterns.
- Analyze regional disparities in economic development and the role of governmental and non-governmental policies in shaping economic landscapes.
- Evaluate the impact of globalization on India's economy, including changes in labor markets, industries, and trade.
- Apply geographic analysis to assess and propose solutions for economic challenges facing different regions of India.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Nature, scope and significance of economic and resource geography. Concepts of resources and their relation with Nature, man and culture. Classification of resources. | 12 |
| **II** | Biotic and abiotic resources, Energy resources. Classification of Economic Activities, Factors influencing Location of Industry. | 12 |
| **III** | Resource conservation and resource regions, Industrial Regions in India. Theories and Models of Economic and Recourse Geography. | 10 |
| **IV** | Sustainable development of resources. Politics of the world resources. Impact of globalisation on the Indian economy and its impact on the environment. | 11 |

**Suggested Readings:**

1. Bryson, J., Henry, N., Keeble, D. and Martin, R. (eds.) (1999): The Economic Geography Reader: Producing and Consuming Global Capitalism. John Wiley and Sons, Inc, New York.
2. Clark,G. L., Gertler, M. S. and Feldman, M. P. (eds.) (2000): The Oxford Handbook of Economic Geography. Oxford University Press, USA.
3. Coe, N. (2007): Economic Geography: A Contemporary Introduction. Blackwell Publishers, Inc., Massachusetts.
4. Gautam, A. (2006): Aarthik Bhugol Ke MoolTattava, Sharda Pustak Bhawan, Allahabad.
5. Guha, J. S. and Chattoraj, P.R. (2002): A New Approach to Economic Geography: A Study of Resources. The World Press Private Limited, Kolkata.
6. Hanink, D. M. (1997): Principles and Applications of Economic Geography: Economy, Policy, Environment. John Wiley and Sons, Inc, New York.
7. Hartshorne, T. A. and Alexander, J. W. (1988): Economic Geography (3rd revised edition) Englewood Cliff , New Jersey, Prentice Hall
8. Hudson, R. (2005): Economic Geographies: Circuits, Flows and Spaces. Sage Publications, London.
9. Knowles, R, Wareing, J. (2000): Economic and Social Geography Made Simple, Rupa and Company, New Delhi.
10. Sokal, Martin 2011. Economic Geographics of Globalisation: A short Introduction. Cheltenham, UK : Edward Elgar.
11. Alexander, J. W. (1988): Economic Geography. Prentice-Hall, New Delhi,

**MA 1st Year, Sem. IX**

**Course III (B)**

**(Theory)**

| Programme/Class: MA | Year: First | Semester: Ninth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110904TN | Course Title: **Marketing Geography** | |

Course outcomes: Students will be able to understand:-

- The course aim is to give basic understanding of concept Environment, Climate Change and Disaster Management.
- Understanding of the concept of appraisal and conservation of Environment and Natural Resources.
- It will help in developing understanding about various Impacts of Climate Change.
- This course shall introduce the basic concepts related to disaster Management.
- This paper shall help in understanding Global effort in field of disaster management.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Marketing Geography: Definition, scope and significance. Growth and development, Approaches of Study: Commodity, Spatial, Social, Economic, Behavioral. Application of Planning: Market, Urban, Agriculture. | 11 |
| **II** | Classification, structure and hierarchy of Market, Christaller and Losch Model of Market Locations, Reilly's Models of Interaction and Trade Area Delimitation. | 12 |
| **III** | Local, Regional, National and International Markets, Factors of Development of Trades. World Trade Organization, World Trading Zone: SAFTA (South Asian Free Trade Association), NAFTA (North Atlantic Free Trade Association). | 12 |
| **IV** | Indian Agricultural Marketing, Regulated, Government Purchase Centers, Informal Marketing. | 10 |

**Suggested Readings: -**

1. Berry, B.J.L. – Geography of Market Centers and Retailing, Prentice Hall.
2. Saxena, H.M. – Marketing Geography, Jaipur.
3. Skinner, G.W. – Marketing and Social Structure in Rural China, Journal of Asian Studies, Vol.24
4. Yadav, H.R. – (ed. Yadav, H.L.) Retailing in Saryupar Plain (Hindi), Radha Publications, New

Delhi.
5. Davies, R.L. - Marketing Geography.
6. Shrivastava, V.K. – (ed) Commercial Activities in South Asia, Concept Publications, NewDelhi.
7. Shrivastava, V.K. & Dixit, R.S., Biparan Bhoogol.

**MA 1st Year, Sem. IX**

**Course III (C)**

**(Theory)**

| Program/Class: MA | Year: First | Semester: Ninth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110905TN | Course Title**: Industrial Geography** | |

Course Learning Outcomes: - On completion of this course, learners will be able to:

- Define Meaning, concepts and approaches of Economic Geography
- Understand the nature of Economic activities, Resource Distribution
- Understand the Effect of globalization on developing countries.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33 (Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Meaning and Scope of Industrial Geography, Industrial Revolution and its Consequences, Trends of Industrialization in India & Abroad. | 9 |
| **II** | Factors of Location of Industries, Theories of Industrial Location - Weber, Hoover, Losch; Industrial Complexes. | 12 |
| **III** | World and India Industrial Regions. Distribution and Spatial Pattern of Iron & Steel, Textile, Sugar & Fertilizer Industry, Industries and Economic Development, Problems and Prospects of Industrial Sprawl. Weber, Theories of Industrial Geography. | 11 |
| **IV** | Impact of Globalization on Industrial Development, Industrial Policies and their Implications in Industrialization in India, Sustainable Industrial Development. | 13 |

**Suggested Readings: -**


1. Alezender, G. – Geography of Manufacturing (1967)
2. Miller, E. – Geography of Manufacturing, Prentice Hall.
3. Fridrich, J. Alfred Weber's Theory of Location of Industries.
4. Riley, R.C. _ Industrial Geography, London.
5. Smith, D.M. – Industrial Geography.
6. Hooever, E.M. – Location in Space Economy.
7. Kumar, Pramila & Sharma, S.K. – AudhogikBhoogol, Bhopal.
8. Lora, R.M. – AudhogiBhoogol
9. Sharma, V.N. – Industrial Development and Planning in India.

**MA 1st Year, Sem. IX**
**Course III (D)**
**(Theory)**

| Programme/Class: MA | Year: First | Semester: Ninth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110906TN | Course Title: **Cultural Geography** | |
| Course outcomes: - Students will be able to understand: | | |
| Credits: 4 | Core Compulsory | |
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33 (Minimum 25 Marks in External) | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w | | |

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Nature and Scope of Cultural Geography, Approaches and Development; Relationship of Culture with Environment; Resources and Technology. | 10 |
| **II** | Major Concepts-Cultural Diffusion, Material Culture, Cultural Landscape and Cultural Ecology; Origin & Dispersal of Man. | 12 |
| **III** | Origin, Types & Dispersal of Human Races, Racial Composition of India; Linguistic and Religious Structure of the World. | 10 |
| **IV** | Domestication of Plants and Animals; Renewal and Dispersal Activities of Crops-Paddy, Maize, Sugarcane and Rubber. Agricultural Practices and Innovations; Globalization and Cultural Development; Ecological Impact of Population Explosion; Cultural Hearths; Major Cultural Realms and Regions of the World. | 13 |

**Suggested Readings: -**


1. Dohrs, I., Sommers, L.,1967, Cultural Geography, Thomas Crowell Company
2. Fred, E. D., Lawrence, M., Cultural Geography, Thomas Y. Crowell Company, New York
3. Jackson, P., David, D., Atkinson, D., Cultural Geography, Rawat Publication
4. Schech, S., and Haggis, J., 2000, Culture and Development, Blackwell Publishers, Great Britain
5. Hussain Majid. Cultural Geography, Anmol Publications PVT. Ltd
6. Mitchell, D.,2000, Cultural Geography- A Critical Introduction, Black Well
7. Oakes, Timothy.S., and Price, Patricia L., 2008, The Cultural Geography Reader, Routledge Publication, New York

**MA 1st Year, Sem. IX**
**Course IV**
**(Practical)**

| Programme/Class: MA | Year: First | Semester: Ninth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A110907PN | Course Title: **Geographic Information System** | |

Course outcomes: Students will be able to understand: -

- To differentiate between qualitative and quantitative information.
- To understand the nature of various data.
- To understand sampling methods for data collection.
- To present data through graphical and diagrammatic formats.
- The concept of probability is mainly the normal distribution.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Advanced functionalities of GIS software Packages (Including Open-Source Software's). – ARC GIS, ERDAS, QGIS etc. | 11 |
| **II** | Advanced techniques in creating, managing and manipulating shapefiles and geodatabases in various GIS software. Working with coordinate systems and projections GIS Data Structures: Types (spatial and Non-spatial), Raster and Vector Data Structure. | 12 |
| **III** | Techniques for accurate geo-referencing of maps and creating detailed point, line, and polygon features. Preparation of Maps with Legend, Scale, Symbology, North Arrow etc and Export of Map in various Formats. Use of GPS Surveying for position (location), navigation, tracking, and mapping. | 13 |
| **IV** | Downloading remote sensing images from various online platforms (like Bhuvan, USGS, ASF, Copernicus, etc.). Land use Classification (Supervised and Unsupervised) using downloaded images and GIS Packages. Detailed practical analysis of land use changes and environmental impacts. | 9 |

**Suggested Readings:**

1. Choniyal, D D, (2016) Sudur Samvaden evam Bhogolic Suchna Pranali ke sighant, Sharda Pustak Bhavan, Allahabad.
2. Lillesand, T.M. and Kiefer, R.W. (2000): Remote Sensing and Image Interpretation. 4th edition. John Wiley and Sons, New York
3. Campbell, J.B. (2002): Introduction to Remote Sensing. 5th edition, Taylor and Francis, London

4. Bhatta, B. (2010): Remote Sensing and GIS, Oxford University Press, New Delhi.
5. Nag Prithvish and Kudrat M. (1998): Digital Remote Sensing, Concept Publishing Company, New Delhi
6. Curran, P.J. (1985): Principles of Remote Sensing, Longman, London.

**MA 1st Year, Sem. IX**

**Course V**

**(Research Project)**

<table>
<tr><td>Program/Class: MA</td><td>Year: First</td><td>Semester: Ninth</td></tr>
<tr><td colspan="3">Subject: Geography</td></tr>
<tr><td>Course Code:<br>A110908RN</td><td colspan="2">Course Title: Dissertation (Progressive)</td></tr>
<tr><td colspan="3">Course Learning Outcomes:- On completion of this course, learners will be able to:<ul><li>Identify significant gaps in existing geographic knowledge and formulate relevant, feasible research questions.</li><li>Design a robust research methodology that employs appropriate geographic techniques to address the identified questions.</li><li>Execute effective data collection and analysis, demonstrating proficiency in using advanced tools and software specific to geographic research.</li><li>Produce a scholarly Dissertation that clearly communicates the study's findings, methods, and implications, and effectively present the research in a professional academic setting.</li></ul></td></tr>
<tr><td colspan="2">Credits: 4</td><td>Core Compulsory</td></tr>
<tr><td colspan="2">Max. Marks: 25(Internal) +75(External)</td><td>Min. Passing Marks:40<br>(Minimum 30 Marks in External)</td></tr>
<tr><td colspan="3">Dissertation Guidelines</td></tr>
<tr><td colspan="3"><ul><li>In the beginning of 9th semester, the Dissertation supervisor shall be assigned to students.</li><li>Dissertation shall be allotted by the departmental committee on the basis of the student's research interests and the specialization of a faculty member.</li><li>By the end of 9th sem , a synopsis of the Research Project shall be submitted by the student and will be approved by the departmental committee.</li><li>Students will continue to work on assigned research projects during the Tenth Semester under the guidance of the Supervisor.</li><li>Students will submit their final dissertations by the end of Tenth semester teaching.</li><li>Synopsis Must Include the following;<br>1. Title of Research Project<br>2. Table of Content<br>3. Introduction<br>4. Review of the Literature<br>5. Study Area<br>6. Amis and Objective<br>7. Hypothesis (If required)<br>8. Methodology<br>9. Tentative Chapterisation<br>10. Conclusion<br>11. References</li></ul></td></tr>
</table>

**MA 1st Year, Sem. X**

**Course I**
**(Theory)**

| Programme/Class: MA | Year: First | Semester: Tenth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A111001TN | Course Title: **Urban Geography** | |

Course outcomes: Students will be able to understand :-

- The course aim is to give a basic understanding of the concept of Environment, Climate Change and Disaster Management.
- Understanding the appraisal and conservation of Environment and Natural Resources.
- It will help develop an understanding of the various impacts of climate change.
- This course shall introduce the basic concepts related to disaster Management.
- This paper shall help in understanding Global efforts in the field of disaster management.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33 (Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Introduction: Defining the city and understanding the different approaches to examining it and its transformations. | 10 |
| **II** | Urban Transformations in Historical Contexts: Early cities to industrial cities, global cities, colonial and post-colonial cities. | 11 |
| **III** | Urban society: Social organization of the city, emergence of urban cultures and subcultures, nature of urban economy, Emergence of urban elites and poor. | 12 |
| **IV** | Governing the City: Role of state in urban planning and development, local politics, citizenship and governance. Contemporary Urban Issues; Urban Poverty; Housing; Slum; Study & Preparation of Master Plan of Selected Cities. | 12 |

**Suggested Readings:-**

1. Mohan Sudha 2005: Urban Development and New Localism. Rawat Publications, Jaipur.
2. Pacione, Micheal, 2001: Urban Geography, Routledge, London
3. Naqvi, H. K. (1971). Urbanisation and Urban Centres under the Great Mughals. Shimla: Indian Institute of Advance Studies .
4. Racine, J. (ed): Calcutta 1981. Concept Pub. Co., New Delhi.
5. Ramachandran R. 1989: Urbanisation arid Urban Systems in India. Oxford University Press, New Delhi.
6. Rao, R. Rammohan and S. Simhadri 1999: Indian Cities: Towards Next Millenium, Rawat Publications, Jaipur.

7. Ray Chaudhuri, Jayasri (2001): An Introduction to Development and Regional Planning. Orient Longman, Kolkata
8. Sharma, R.N. and K. Sita 2001: Issues in Urban Development. Rawat Publications, Jaipur.
9. Short, J. R. (1984). An Introduction to Urban Geography. London: Routledge and Keygen Paul.
10. Singh, A. K. (1990). Urbanisation and Administration of Urban Infrastructure. New Delhi: Inter-India Publications.

**MA 1st Year, Sem. X**
**Course II**
**(Theory)**

| Program/Class: MA | Year: First | Semester: Tenth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A111002TN | Course Title**: Agriculture Geography** | |

Course Learning Outcomes: - On completion of this course, learners will be able to:

- Define Meaning, concepts and approaches of Economic Geography
- Understand the nature of Economic activities, Resource Distribution
- Understand the Effect of globalization on developing countries.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33 (Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Definition and Scope of Agricultural Geography, Land Capability Classification with Special Reference to India. | 10 |
| **II** | Land Use Classification with Special Reference to India. Carrying Capacity of Land, Kostrowicki's Classification of World Agriculture. | 11 |
| **III** | Methods of Agricultural Productivity Measurement - Kendall's Ranking Coefficient Method, Weighted Ranking Coefficient Method. | 12 |
| **IV** | Delimitation Method of Crop Combination Regions by Weaver and Doi; Cropping Intensity and Diversification, Measurement of Level of Agricultural Development. Impact of Modern Agriculture on Environment and Sustainable Agriculture. | 12 |

**Suggested Readings: -**


1. Bayliss Smith, T. P: The Ecology of Agricultural Systems. Cambridge University Press, London, 1987.
2. Berry, B.J.L. et al: The Geography of Economic Systems. Prentice Hall, New York, 1976.
3. Brown, L.R.: The Changing Food Prospects - The Nineties and Beyond. World Watch Institute, Washington D.C., 1990.
4. Dyson, T.: Population and Food - Global Trends and Future Prospects, Routledge, London, 1996.
5. Gregor, HP: Geography Of Agriculture. Prentice Hall, New York, 1970.
6. Grigg, D. B. The Agricultural Systems of the World. Cambridge University, 1988.
7. Hrtshom, T.N. Alexander, J.W: Economic Geography Prentice Hall, New Delhi, 1988.
8. Mannion, A.M.: Agriculture and Environment Change. John Wiley, London, 1995.

9. Morgan, W.B. and Norton, R.J.C.; Agricultural Geography. Mthuen, London, 1971
10.Morgan, W.B : Agriculture in the Third World - A Spatial Analysis Westview Press, Boulder, 1978.

**MA 1st Year, Sem. X**

**Course III (A)**

**(Theory)**

| Programme/Class: MA | Year: First | Semester: Tenth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A111003TN | Course Title: **Advance Environmental Geography** | |

Course outcomes: Students will be able to understand :-

- Understand complex environmental systems and the interactions between human activities and natural processes.
- Analyze environmental issues using advanced geographical theories and methodologies.
- Evaluate the effectiveness of environmental policies and practices using geographic data and spatial analysis.
- Develop strategies for sustainable environmental management and conservation through applied geographic knowledge.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Environment, Ecosystem and Biodiversity. Global environmental problems: Desertification, Climate Change, Global Warming, Sea Level Rise etc. Concept of Sustainable Development and SDG. | 10 |
| **II** | Urban Environmental Problems and their Management: Air, water and solid waste management. National Parks for Environmental Protection. Wetlands Protection and Conservation. | 10 |
| **III** | Desert, Coastal, Mountain and Mangrove ecosystems of India. Ganga Action Plan, Project Tiger. | 12 |
| **IV** | Environmental Governance: Environmental policies and programs, environmental education and legislation. | 13 |

**Suggested Readings: -**


1. Casper J.K. (2010). Changing Ecosystems: Effects of Global Warming. New York, USA: Infobase Pub.
2. Hudson, T. (2011). Living with Earth: An Introduction to Environmental Geology. Delhi, India: PHI Learning Private Limited.
3. Miller, G.T. (2007). Living in the Environment: Principal, Connections, and Solutions.Belmont, Australia: Brooks/ Cole Cengage Learning.
4. Singh, R.B. (1993) Environmental Geography. Delhi, India: Heritage Publishers.
5. UNEP. (2007). Global Environment Outlook: GEO4: Environment For Development, United Nations Environment Programme. UK: University Press, Cambridge.
6. Dash, M.C., 1993: Fundamentals of Ecology, Tata McGraw-Hill, New Delhi.

**MA 1st Year, Sem. X**
**Course III (B)**
**(Theory)**

| Program/Class: MA | Year: First | Semester: Tenth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A111004TN | Course Title**: Rural Geography** | |

Course Learning Outcomes:- On completion of this course, learners will be able to:

- Define Meaning, concepts and approaches of Economic Geography
- Understand the nature of Economic activities, Resource Distribution
- Understand the Effect of globalization on developing countries.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Conceptual scope of rural geography, different approaches to study rural Geography, concept and significance of rural development. Indicators of rural development. | 10 |
| **II** | Rural Settlements: Definition and characteristics Types and patterns of rural settlements and their distribution with special reference to spacing, rural house types, based on building materials, size and shape. | 12 |
| **III** | Rural infrastructure facilities and amenities, New Agricultural technology: Rural transportation, rural education, rural industries and rural marketing. | 11 |
| **IV** | Critical review of rural development strategies in India; Integrated Rural Development Program (I.R.D.P.), Community Development programs. MNREGA, Soil Health Card, National Agriculture Policies. | 12 |

**Suggested Readings: -**


1. Singh Kartar., Rural Development: Principles, Policies and Management.
2. Maheshwari, R.S., Rural Development in India.
3. Clout, S.D., Rural Geography.
4. Husain, Majid., Agricultural Geography, New Delhi.
5. Bell, G.(Ed.), Strategies for Human Settlements: Habitat and Environment.
6. Chisholm, M., Rural Settlement and Land Use.
7. Singh, R.L. et.al: Readings in Rural Settlement Geography.
8. Singh, K.N.(Ed.) Rural Development in India: Problems, Strategies and Approaches.
9. Wanmali, Sudhir., Service Centres in Rural India.
10. Mishra, H.N.(Ed.) Rural Geography.

**MA 1st Year, Sem. X**
**Course III (C)**

**(Theory)**

| Program/Class: MA | Year: First | Semester: Tenth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A111005TN | Course Title**: Geography of Health** | |

Course Learning Outcomes:- On completion of this course, learners will be able to:

- Define Meaning, concepts and approaches of Economic Geography
- Understand the nature of Economic activities, Resource Distribution
- Understand the Effect of globalization on developing countries.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33 (Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Meaning, Scope, Significance, Development, Methods and Techniques of Geography of Health, Geographical factor affecting human health & diseases - Physical, Social, Economic and Environmental. | 12 |
| **II** | Vital & Health Indices; Classification of Diseases Genetic, Communicable & Non- communicable, Occupational and Deficiency Diseases, Geography of Hunger and Malnutrition. | 10 |
| **III** | Patten of Distribution of Major Diseases in the World; Ecology, Etiology and Transmission of Major Diseases - Cholera, Malaria, Tuberculosis, Hepatitis, Cancer, AIDS and STDs and their Regional Patterns with special reference to India. | 12 |
| **IV** | Disease Diffusion Models and Health Care Accessibility Models; Health Care System International Level - WHO, UNICEF & Red Cross; National Level - Government and NGO's. Health Planning and Policies in India, Family Welfare; Immunization, National Disease Eradication, Aayushman Bharat Yojana & Health for all. | 11 |

**Suggested Readings: -**


1. Cliff, A. & Hagget, P. – Atlas of Disease Distribution.
2. May, J.M. – Study in Disease Ecology.
3. May, J.M. – Ecology of Human Disease.
4. Forste, D.H. – Health, Disease and Environment.
5. Pyle, G.P. – Applied Medical Geography.
6. Mishra, R.P.L. – Medical Geography of India.
7. Rais, Akhter – Environment and Health.
8. Learmonth, A.T.A. – Disease Ecology.
9. Hunter, J.M. – Geography of Health and Disease.
10. Raise, A. and Learmonth, A.T.A. – Geographical Aspect of Health and Disease.

**MA 1st Year, Sem. X**

**Course III (D)**

**(Theory)**

| Programme/Class: MA | Year: First | Semester: Tenth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A111006TN | Course Title: **Geography of Tourism** | |

Course outcomes:- Students will be able to understand :

- Analyze tourism's geographical distribution and dynamics, understanding how location, culture, and economy shape travel patterns.
- Evaluate tourism's economic, cultural, environmental, and social impacts on local and global scales, identifying both positive and negative consequences.
- Develop and assess strategies for sustainable tourism that balance environmental conservation, cultural integrity, and economic development.
- Apply geographic analysis and methodologies to inform tourism policy-making, planning, and management, enhancing destination competitiveness and the quality of visitor experiences.

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L- 4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I** | Basics of Tourism; Definition of tourism; Factors influencing tourism: historical, natural, socio-cultural and economic; tourism as an industry. | 11 |
| **II** | Tourism types: cultural, eco-ethno-coastal and adventure tourism, national and international tourism; globalization and tourism; International pattern of Tourism; | 12 |
| **III** | Tourism development in India - origin and evolution, spatial pattern, problems and policies; Tourism circuits | 10 |
| **IV** | Impacts of tourism: physical, economic and social impact, negative impacts of Tourism; Environmental laws and tourism- Current trends, spatial patterns and recent changes; Role of foreign capital & impact of globalization on tourism. | 12 |

**Suggested Readings:-**

1. Bhatia A.K. : Tourism Development : Principles and Practices. Sterling Publishers, New Delhi 1996
2. Bhatiya, A.K. International Tourism-Fundamentals and Practices, Sterling, New Delhi (1991)
3. Chandra R.H. : Hill Tourism : Planning and Development, Kanishka Publishers, New Delhi 1998.
4. Hunter C and Green H : Tourism and the Environment : A Sustainable Relationship, Routledge, London 1995.
5. Inskeep. E : Tourism Planning : An Integrated and Sustainable Development Approach, Van Nostrand and Reinhold, New York, 1991.
6. Kaul R.K. : Dynamics of Tourism & Recreation. Inter-India, New Delhi. (1985)
7. Kaur J. : Himalayan Pilgrimages & New Tourism. Himalayan Books, New Delhi 1985.
8. Lea J. : Tourism and Development in the Third World. Routledge, London 1988.
9. Milton D. : Geography of World Tourism. Prentice. Hall, New York, 1993
10. Pearce D. G. : Tourism To-day : A Geographical Analysis, Harlow, Longman, 1987.
11. Robinson, H. : A Geography of Tourism. Macdonald and Evans, London. 1996

**MA 1st Year, Sem. X**

**Course IV**

**(Practical)**

| Program/Class: MA | Year: First | Semester: Tenth |
|---|---|---|
| Subject: Geography | | |
| Course Code: A111007PN | Course Title: **Surveying** | |

Course Learning Outcomes:- On completion of this course, learners will be able to:

- Identify the various Survey Operations and Survey Instruments
- To understand the idea of Basic and applied Instrumental surveying

| Credits: 4 | Core Compulsory |
|---|---|
| Max. Marks: 25(Internal) +75(External) | Min. Passing Marks:33<br>(Minimum 25 Marks in External) |

Total No. of Lectures-Tutorials-Practical (in hours per week): L-4/w

| Unit | Topics | No. of Lectures |
|---|---|---|
| **I & II** | Measurement of Horizontal and Vertical Angle by Theodolite Survey by Sextant | 22 |
| **III & IV** | Surveying by Dumpy Level | 23 |

**Suggested Readings:**


1. Monkhouse, F. J. and Wilkinson, F.J. (1985): Maps and Diagrams. Methuen, London
2. Raisz, E. (1962): General Cartography. John Wiley and Sons, New York. 5th edition.
3. Sarkar, A. K. (1997): Practical Geography: A Systematic Approach. Orient Longman, Kolkata.
4. Sharma, J. P. (2001): Prayogik Bhugol., Rastogi Publication, Meerut 3rd. edition.
5. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions). Kalyani Publishers, New Delhi,.
6. Singh, L.R. (2006): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad.

**MA 1st Year, Sem. X**

**Course V**

**(Research Project)**

<table>
<tr><td>Program/Class: MA</td><td>Year: First</td><td>Semester: Tenth</td></tr>
<tr><td colspan="3">Subject: Geography</td></tr>
<tr><td>Course Code:<br>A111009RN</td><td colspan="2">Course Title: Dissertation (Submitted)</td></tr>
<tr><td colspan="3">Course Learning Outcomes:- On completion of this course, learners will be able to:<br>• Identify significant gaps in existing geographic knowledge and formulate relevant, feasible research questions.<br>• Design a robust research methodology that employs appropriate geographic techniques to address the identified questions.<br>• Execute effective data collection and analysis, demonstrating proficiency in using advanced tools and software specific to geographic research.<br>• Produce a scholarly Dissertation that clearly communicates the study's findings, methods, and implications, and effectively present the research in a professional academic setting.</td></tr>
<tr><td colspan="2">Credits: 4</td><td>Core Compulsory</td></tr>
<tr><td colspan="2">Max. Marks: 25(Internal) +75(External)</td><td>Min. Passing Marks:40<br>(Minimum 30 Marks in External)</td></tr>
<tr><td colspan="3">Dissertation Guidelines</td></tr>
<tr><td colspan="3">• Students will continue to work on assigned research projects during the Tenth Semester under the guidance of the Supervisor.<br>• Students will submit their final dissertations by the end of Tenth semester teaching.</td></tr>
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