अध्ययन मंडल बैठक दिनांक 16/07/2025

विषय – भूगोल

राष्ट्रीय शिक्षा नीति 2020 के अनुरूप विश्वविद्यालय अन्तर्गत संचालित एम.ए. भूगोल में अध्ययन मंडल द्वारा तैयार किये गये तृतीय एवं चर्तुथ सेमेस्टर के पाठ्यक्रम को निम्नानुसार लागू करने की अनुशंसा की जाती है।

THIRD SEMESTER									
COURSE TYPES	PAPER CODE	TITLE	PAPER	SEMESTER	CREDIT	MAX. M.	MIN. M.	CIA	ESE
DSC	GOSC -9 T	RESEARCH METHODS AND TECHNIQUES	T	III	4	100	40	30	70
DSC	GOSC -10 P	COMPUTER CARTOGRAPHY	P	III	2	50	20	15	35
DSC	GOSC -11 P	FIELD STUDY AND GEOGRAPHICAL EXCURSION & REPORT	P	III	2	50	20	15	35
Select Three paper of the Elective group to be selected from the following:									
DSE	GOSE -13 T	EMERGING GEOGRAPHICAL THOUGHT	T	III	4	100	40	30	70
DSE	GOSE- 14 T	ADVANCED GEOGRAPHY OF INDIA	T	III	4	100	40	30	70
DSE	GOSE- 15 T	POPULATION GEOGRAPHY	T	III	4	100	40	30	70
DSE	GOSE -16 T	ADVANCED CARTOGRAPHY	T	III	4	100	40	30	70
DSE	GOSE -17 T	CLIMETOLOGY AND HYDROLOGY	T	III	4	100	40	30	70
					20	500	200	135	315
FOURTH SEMESTER									
DSC	**GOSC- 12**	**RESEARCH WORK AND DISSERTATION**	**P**	**IV**	**20**	**500**	**200**	**350**	**150**
	I	REVIEW OF LITERATURE, RESEARCH METHODOLOGY	P	IV	4	100	40	100	
	II	SELECTION OF PROBLEM, DATA COLLECTION	P	IV	4	100	40	100	
	III	HYPOTHESIS, RESEARCH DESIGN	P	IV	2	50	20	50	
	IV	RESEARCH WRITING, ANALYSIS AND INTERPRETATION	P	IV	4	100	40	100	
	V	DISSERTATION AND VIVA- VOICE	P	IV	6	150	60		150

क्र.	नाम	पदनाम	अध्यक्ष/ सदस्य	
(1)	डॉ सखाराम कुंजाम	सहा. प्राध्यापक	अध्यक्ष	[signature] 9425529192
(2)	श्री [illegible]	— " —	सदस्य	[signature] 9406040095
(3)	डॉ के.के. मरकाम	— " —	सदस्य	[signature] 9669927750
(4)	कमलेश पोटाई	— " —	सदस्य	[signature] 7587771547
(5)	रामयश प्रजापति	— " —	सदस्य	[signature] 16/07/25, 9839964866
(6)	डॉ. डी.एल. पटेल	— (सेवानिवृत्त)	"	[signature] 16.07.25 9424275020

Geography			
PART – A : Introduction (2025-26)			
Program: Masters in Arts (M.A.)		**Semester-III**	**Session: 2025-2026**
1	Course Code	**GOSC-09 T**	
2	Course Title	**Research Methodology and Techniques**	
3	Course Type	**DSC**	
4	Pre-requiste (if any)	As per Program	
5	Course Learning Outcomes (CLO)	1. Learners will understand the fundamental concepts, scope, and philosophical paradigms of geographical research, including various approaches and methods. 2. They will be able to design a research plan, identify research problems, formulate objectives and hypotheses. 3. To conduct a critical literature review using appropriate referencing and citation tools while adhering to research ethics. 4. Students will gain practical skills in selecting suitable data collection techniques, using both traditional and ICT tools to gather, classify, and organize spatial and non-spatial data effectively. 5. They will develop competence in applying statistical tools, conducting data analysis using software like SPSS and QGIS, and preparing well-structured research reports with accurate interpretation and presentation of findings.	
6	Credit Value	4 Credits	Credit = 15 Hours - Learning & Observation
7	Total Marks	Maximum Marks : 100	Minimum Passing Marks: 40

PART – B : Content of the Course		
Total No. of Teaching Periods (1 Hour per Period) = 60 periods (60 Hours)		
Module/Unit	**Topics (Course Content)**	**No. of Periods**
I	**Foundations of Geographical Research:** Concept and scope of research in social sciences and geography; Traditional, Behavioural, Experimental approaches; Inductive and Deductive methods; Positivist and Post-positivist paradigms; Types and features of research; Case study selection; Research process – Introduction and objectives.	15
II	**Research Design & Literature Review:** Problem identification; Objective formulation; Hypothesis – types and confidence levels; Literature review – purpose, methods, critical techniques; Bibliography and referencing styles (APA, MLA, Chicago); Use of Zotero, Mendeley; Ethics and plagiarism.	18
III	**Data Collection Methods:** Spatial/non-spatial, temporal data; Primary/secondary sources; Toposheets, maps, indicator/variable selection; Data collection tools – questionnaire, schedule, interview, field observation; ICT tools – Google Forms, GPS apps; Data classification and tabulation.	12
IV	**Data Analysis & Report Writing:** Sampling – types and methods; Measures of central tendency and dispersion; Standard error, hypothesis testing; Parametric (t, F-test) and non-parametric (Chi-square) tests; Data tabulation, graphs; Analysis using SPSS, Excel, QGIS; Interpretation, report writing, conclusion, bibliography.	15
Keywords:	Geographical Research, Research Paradigms, Research Design, Literature Review, Data Collection, Sampling, Statistical Analysis, SPSS, QGIS, Report Writing, Research Ethics, Referencing Styles.	

*T= Theory Paper
*P= Practical Paper

Part – C : Learning Resources

Text Books, Reference Book and Others

1. Ahuja, R. (2001). *Research methods*. Rawat Publications.
2. Ahuja, S. (2015). *Monitoring water quality: Pollution assessment, analysis, and remediation*. Elsevier.
3. Bhattacharyya, D. K. (2005). *Research methodology*. Excel Books.
4. Blackburn, J., & Holland, J. (1998). *Who changes?*. IT Publications.
5. Burt, R. (Ed.). (2004). *Soil survey laboratory methods manual: Soil Survey Investigations Report No. 42, Version 4.0*. USDA.
6. Cole, J. P., & King, C. A. M. (1968). *Quantitative geography: Techniques and theories in geography*. Wiley.
7. Crang, M. (1999). *Cultural geography*. Routledge.
8. Denzin, N. K., & Lincoln, Y. S. (2000). *Handbook of qualitative research* (2nd ed.). Sage Publications.
9. Deshprabhu, S. *Sociological research*. (Publication details needed).
10. Dikshit, R. D. (2003). *The art and science of geography*. Prentice-Hall of India.
11. Haggett, P., & Chorley, R. J. (1967). *Models in geography*. Methuen.
12. Haggett, P. *Quantitative techniques in geography*. (Confirmation needed: Likely Haggett – publication details needed).
13. Hay, I. (2000). *Qualitative research methods in human geography*. Oxford University Press.
14. Kitchin, R., & Fuller, D. (2003). *The academic's guide to publishing*. Vistaar Publications.
15. Kitchin, R., & Tate, N. (2001). *Conducting research into human geography*. Prentice-Hall.
16. Kothari, C. R. (2004). *Research methodology: Methods and techniques* (2nd ed.). New Age International Publishers.
17. Kothari, C. R. (2009). *Quantitative techniques* (3rd ed.). Vikas Publishing House.
18. Limb, M. (2001). *Qualitative methodologies for geographers*. Edward Arnold.
19. McKenzie, N. J., Grundy, M. J., Webster, R., & Ringrose-Voase, A. J. (2008). *Guidelines for surveying soil and land resources* (2nd ed.). CSIRO Publishing.
20. Mishra, H. N. *Research methodology in geography*. (Publication details needed).
21. Mukherjee, N. (1993). *Participatory rural appraisal*. Concept Publishing Company.
22. Mukherjee, N. (2002). *Participatory learning and action*. Concept Publishing Company.
23. Parsons, T., & Knight, P. G. (1995). *How to do your dissertation in geography and related disciplines*. Chapman & Hall.
24. Peet, R., & Thrift, N. (1989/2002). *New models in geography* (Vols. 1 & 2). Rawat Publications.
25. Rogers, A., & Viles, H. A. (2003). *The student's companion to geography*. Blackwell.
26. Rowell, D. L. (1995). *Soil science: Methods and applications*. Longman Scientific & Technical.
27. Sheskin, I. M. (1987). *Survey research for geographers*. Scientific Publishers.
28. Silverman, D. (1993). *Interpreting qualitative data: Methods for analyzing talk, text and interaction*. Sage Publications.
29. United States Bureau of Plant Industry, Soils, and Agricultural Engineering. (1951). *Soil survey manual* (USDA Handbook No. 18). U.S. Government Printing Office.
30. Wolcott, H. (1995). *The art of fieldwork*. AltaMira Press.
31. Wright, D. B. (1997). *Understanding statistics: An introduction for the social sciences*. Sage Publications.
32. Mukherjee, Radhakamal. *Samajik anusandhan evam sarvekshan* (सामाजिक अनुसंधान एवं सर्वेक्षण).
33. Mukherjee, Rabindranath. *Samajik shodh evam sankhyiki* (सामाजिक शोध व सांख्यिकी).
34. Shrivastava, V. K. *Sankhyiki bhugol* (सांख्यिकी भूगोल).
35. Yadav, Heeralal. (1994). *Shodh pravidhi evam matratmak bhugol* (शोध प्रविधि एवं मात्रात्मक भूगोल). Radha Publications

Online Resources-(e-Resources/e-books and e-learning portals)

- www.ignou.ac.in
- www.egyankosh.ac.in
- www.iitm.ac.in
- www.eskillindia.org
- www.eshiksha.mp.gov.in

*T= Theory Paper
*P= Practical Paper

- www.vlab.co.in
- www.swayam.ac.in
- www.internshala.com

PART-D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks:	**100 Marks**
Continuous Internal Assessment (CIA):	**30 Marks**
End Semester Exam(ESE):	**70 Marks**

Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal Test/Quiz-(2): 20+20** **Assignment/Seminar- 10** **Total Marks- 30**	**Better marks out of the two Test/Quiz obtained marks in Assignment shall be considered against 30 Marks**
End Semester Exam (ESE):	**Two section-A & B** **Section A: Q1. Objective-10 x1=10 Mark; Q2. Short answer type- 5x4-20Marks** **Section B: Descriptive answer type qts., lout of 2 from each unit-4x10-40Marks**	

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Geography			
PART – A : Introduction (2025-26)			
Program: Masters in Arts (M.A.)		**Semester-III**	**Session: 2025-2026**
1	Course Code	**GOSC-10 P**	
2	Course Title	**Computer Cartography**	
3	Course Type	**DSC**	
4	Pre-requiste (if any)	As per Program	
5	Course Learning Outcomes (CLO)	1. At the end of this course, the students will be able to: 2. Learn the computer hardware, software & its uses. 3. Understand the use of computer in mapping 4. A Represent the geographical data using MS-EXEL -graphs	
6	Credit Value	2 Credits	Credit = 30 Hours - Learning & Observation
7	Total Marks	Maximum Marks : 50	Minimum Passing Marks: 20

PART – B : Content of the Course		
Total No. of Teaching Periods (1 Hour per Period) = 30 periods (30 Hours)		
Module/Unit	**Topics (Course Content)**	**No. of Periods**
I	Computer cartography: meaning, concepts, theories, methods and tools of computer cartography	30
II	Computer: Input units, Output units, Storage, Operating system, software for Mapping & diagrammatic representation of geographic data	
III	Making of graphs- Pie graph, Bar graph, line graph with MS EXCEL	
IV	Mapping with computer.	
Keywords:	Cartography, computer, mapping	

Part – C : Learning Resources
Text Books, Reference Book and Others
1.Gupta K. K. and Tyagi V. C., 1992: Working with Maps, Survey of India, DST, New Delhi. 2. Mishra R.P and Ramesh A. 2000: Fundamentals of Cartography. Concept Publ. Com., New Delhi, 3. Sharma J. P., 2010: Prayogic Bhugol, stogi Publishers, Meerut. 4. Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publishers. 5. Sarkar, A. (2015) Practical geography: A systematic approach. Orient Black Swan Private Ltd., New Delhi 6. Prof. R.N.Mishra & P.K.Sharma (2023) Practical Geography, Pareek Publication Jaipur
Online Resources- **1. Map Work and Practical Geography https://books.google.co.in/books** **2. Practical Geography, S.B.P.D Publicationshttps://uou.ac.in/sites/default/files/s/m/DGIS-504.pdf** **3. https://ncert.nic.in/ncerts/1/legv303.pdf** **4. https://www.uou.ac.in/sites/default/files/slm/GE-203.pdf**

*T= Theory Paper
*P= Practical Paper

PART-D: Assessment and Evaluation		
Suggested Continuous Evaluation Methods: **Maximum Marks:** 50 Marks **Continuous Internal Assessment (CIA):** 15 Marks **End Semester Exam(ESE):** 35 Marks		
Continuous Internal Assessment (CIA): **(By Course Teacher)**	**Internal Test/Quiz-(2):** 10+10 **Assignment/Seminar-** 5 **Total Marks-** 15	**Better marks out of the two Test/Quiz obtained marks in Assignment shall be considered against 15 Marks**
End Semester Exam (ESE):	**Two section-A & B** **Section A: Q1. Objective-5 x1=5 Mark; Q2. Short answer type- 5x4-20Marks** **Section B: Descriptive answer type qts., Iout of 2 from each unit-1x10-10Marks**	

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Geography			
PART – A : Introduction (2025-26)			
Program: Masters in Arts (M.A.)		**Semester-III**	**Session: 2025-2026**
1	Course Code	**GOSC-11 P**	
2	Course Title	**Field Study and Geographical Excursion & Report**	
3	Course Type	**DSC**	
4	Pre-requiste (if any)	As per Program	
5	Course Learning Outcomes (CLO)	1. Students will gain first-hand understanding of the physical, cultural, and environmental features of coastal, mountain, plateau, and natural regions in India and Chhattisgarh through field visits. 2. They will develop skills in planning and conducting field surveys based on geographical location and thematic focus. 3. Learners will enhance their ability to observe, record, and interpret primary data collected during field excursions. 4. They will be able to prepare a comprehensive field report that critically analyses and presents their survey findings in a systematic manner.	
6	Credit Value	2 Credits	Credit = 30 Hours - Learning & Observation
7	Total Marks	Maximum Marks : 50	Minimum Marks: 20

PART – B : Content of the Course		
Total No. of Teaching Periods (1 Hour per Period) = 60 periods (60 Hours)		
Module/Unit	**Topics (Course Content)**	**No. of Periods**
I	**Excursion Tour/Field Survey:** Study of Coastal, Mountain, Plateau, and Natural Regions of India & Chhattisgarh; visit to nearby places based on location.	30
II	**Report Writing:** Preparation of a detailed report based on the field tour and survey observations.	
Note:	**Travel expenses for the tour/field work will be borne by the institute as per available resources.**	
Keywords:	Field Survey, Excursion Tour, Coastal and Mountain Regions, Plateau Regions, Natural Regions, Observation Skills, Primary Data Collection, Report Writing.	

*T= Theory Paper
*P= Practical Paper

Part – C : Learning Resources
Text Books, Reference Book and Others
1. Sarkar, A. (2015). *Practical geography: A systematic approach*. Orient BlackSwan Private Ltd. 2. Sharma, J. P. (2010). *Prayogic Bhugol*. Rastogi Publishers. 3. Singh, R. L., & Singh, R. P. B. (1999). *Elements of practical geography*. Kalyani Publishers. 4. Slocum, T. A., McMaster, R. B., & Kessler, F. C. (2008). *Thematic cartography and geovisualization* (3rd ed.). Prentice Hall. 5. Mishra, R. N., & Sharma, P. K. (2023). *Practical geography*. Pareek Publication. 6. Singh, L. R., & Singh, R. (1977). *Manchitra aur Prayogatmak Bhugol* [मानचित्र और प्रायोगात्मक भूगोल]. Central Book Depot. 7. Singh, R. L., & Dutta, P. K. (2012). *Prayogatmak Bhugol* [प्रायोगात्मक भूगोल]. Central Book Depot. 8. Google Books. *Map work and practical geography*. https://books.google.co.in/books 9. S.B.P.D Publications. *Practical geography*. https://uou.ac.in/sites/default/files/sim/DGIS-504.pdf 10. NCERT. *Fundamentals of practical geography*. https://ncert.nic.in/ncerts/1/legy303.pdf 11. Uttarakhand Open University. *GE-203: Practical geography*. https://www.uou.ac.in/sites/default/files/sim/GE-203.pdf
Online Resources-(e-Resources/e-books and e-learning portals) ➢ www.ignou.ac.in ➢ www.egyankosh.ac.in ➢ www.iitm.ac.in ➢ www.eskillindia.org ➢ www.eshiksha.mp.gov.in ➢ www.vlab.co.in ➢ www.swayam.ac.in ➢ www.internshala.com

PART-D: Assessment and Evaluation		
Suggested Continuous Evaluation Methods: **Maximum Marks:** 50 Marks **Continuous Internal Assessment (CIA):** 50 Marks **End Semester Exam(ESE):**		
Continuous Internal Assessment (CIA): (By Course Teacher)	**Tour report presentation : 15 Marks** **Total Marks: 15 Marks**	**Tour report presentation shall be considered against 15 Marks**
End Semester Exam (ESE):	**Submit Tour report at least 50 pages in concern department** **Total Marks: 35 Marks**	**Managed by Course teacher as per the course.**

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Geography			
PART – A : Introduction (2025-26)			
Program: Masters in Arts (M.A.)		**Semester-III**	**Session: 2025-2026**
1	Course Code	**GOSE-13 T**	
2	Course Title	**Emerging Geographical Thought**	
3	Course Type	**DSE**	
4	Pre-requiste (if any)	As per Program	
5	Course Learning Outcomes (CLO)	1. Understand the historical foundations of geographical thought, including ancient contributions and core concepts like space, place, region, and man-environment interaction. 2. Evaluate the contributions of major geographical thinkers and schools, and understand key philosophical traditions such as Possibilism, Cultural Landscape, and Humanistic Geography. 3. Analyze contemporary paradigms in geography, including Quantitative, Behavioural, Marxist, and Postmodern approaches, along with major methodological and philosophical dualisms. 4. Examine Indian contributions to geographical knowledge, from ancient traditions to modern developments, including Gandhian thought and postcolonial perspectives.	
6	Credit Value	4 Credits	Credit = 15 Hours - Learning & Observation
7	Total Marks	Maximum Marks : 100	Minimum Passing Marks: 40

PART – B : Content of the Course		
Total No. of Teaching Periods (1 Hour per Period) = 60 periods (60 Hours)		
Module/Unit	**Topics (Course Content)**	**No. of Periods**
I	**Foundations and Core Concepts in Geographic Thought**- Contribution of Geographical Ancient Schools: Greek, Roman, Arab, Chinese. Basic frame of reference in geographic thought- Concepts: Space, Place, Time, Environment, and Spatial Organisation- Man-environment interaction: From Determinism to Possibilism to New Environmentalism- Concept of Region and Regional Typology- Culture and Cultural Landscape – meanings and evolution	15
II	**Thinkers in Geography**- Modern thoughts Schools: British, German, French, Amarican, Russian. Quantitative Revolution and its critiques- Philosophy and Geography: Vidal de la Blache (Possibilism), Carl Sauer (Cultural Landscape)- Contributions of Yi-Fu Tuan in Humanistic and Phenomenological Geography- Literary Geography: Landscape as text- Contributions of Varenius, Kant, Humboldt, Ritter, Schaefer, and Hartshorne	15
III	**Contemporary Paradigms and Trends**- Qualitative paradigm and Behavioural Revolution: Perception, cognition, and mental maps- Marxist Geography: space, power, and social justice- Postmodernism, Poststructuralism, and Postcolonial critiques in Geography- Paradigm Shift and Dualisms in Geography: Physical vs. Human, Regional vs. Systematic, Qualitative vs. Quantitative, Idiographic vs. Nomothetic traditions	15
IV	**Indian Contributions and Future Directions**- Ancient Indian traditions of geographical knowledge (e.g. cultural astronomy, cosmography)- Contributions of Indian scholars and Gandhi's environmental philosophy- Gaia Theory and its reflection in Indian ecological thought- Contemporary Trends in Indian Geography: Cartographic, Thematic, and Methodological Developments- Postcolonial Indian Geography: issues, perspectives, and prospects	15

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Keywords:	Ancient Geography, Space and Place, Man-Environment Interaction, Determinism & Possibilism, Geographical Thinkers, Postmodern & Postcolonial Geography, Cartographic & Thematic Trends, Philosophical Paradigms in Geography

Part – C : Learning Resources

Text Books, Reference Book and Others

1. Abler, R., Adams, J. S., & Gould, P. (1971). *Spatial organization: The geographer's view of the world*. Prentice-Hall.
2. Adhikari, S. (1992). *Geographical thought*. Chaitanya Publishing House.
3. Ali, S. M. (1968). *The geography of Puranas*. People's Publishing House.
4. Arentsen, M., Stam, R., & Thuijis, R. (2000). *Post-modern approaches to space* [eBook].
5. Bhat, L. S. (2009). *Geography in India: Selected themes*. Pearson Education.
6. Bonnett, A. (2008). *What is geography?* Sage Publications.
7. Bunge, W. (1962). *Theoretical geography*. Glenerp.
8. Dickinson, R. (1969). *Makers of modern geography*. Lyall Book Depot.
9. Dikshit, R. D. (1994). *The art and science of geography: Selected readings*. Prentice-Hall of India.
10. Dikshit, R. D. (1997/2006). *Geographical thought: A contextual history of ideas* (2nd ed.). Prentice-Hall of India.
11. Dunbar, G. S. (1991). *Modern geography: An encyclopedic survey*. St. James Press.
12. Freeman, T. W. (1971). *A hundred years of geography*. Gerald Duckworth & Co.
13. Geoffrey, J. Martin. (2005). *All possible worlds: A history of geographical ideas*. Oxford University Press.
14. Hartshorne, R. (1968). *Perspectives on the nature of geography*. Association of American Geographers.
15. Harvey, D. (1969). *Explanation in geography*. Edward Arnold.
16. Harvey, E., & Holly, B. P. (2002). *Themes in geographical thought*. Rawat Publications.
17. Holt-Jensen, A. (2011). *Geography: History and its concepts – A student's guide* (4th ed.). Sage Publications.
18. Husain, M. (2015). *Evolution of geographical thought* (6th ed.). Rawat Publications.
19. Johnston, R. J. (1983). *Philosophy and human geography*. Edward Arnold.
20. Johnston, R. J. (2000). *Geography and geographers* (5th ed.). Oxford University Press.
21. Johnston, R. J. (Ed.). *Dictionary of human geography*. Routledge.
22. Kapur, A. (2001). *Indian geography: Voice of concern*. Concept Publishing Company.
23. Minshull, R. (1970). *The changing nature of geography*. Hutchinson University Library.
24. Peet, R. (2003). *Radical geography*. Rawat Publications.
25. Peet, R., & Thrift, N. (1989). *New models in geography*. Unwin Hyman.
26. Singh, U. *Bhaugolik chintan ka vikas* (भौगोलिक चिन्तन का विकास).
27. Singh, J. *Bhaugolik chintan ka mooladhar*.
28. Smith, D. (1994). *Geography and social justice*. Blackwell.
29. Soja, E. (1989). *Post-modern geographies: The reassertion of space in critical social theory*. Verso. (Reprinted 1997 by Rawat Publications)
30. Soja, E. (2003). *Postmodern geographies*. British Library Cataloguing in Publication Data.
31. Taylor, G. (1951/2015). *Geography in the 20th century* [eBook]. Routledge.
32. Tripathi, & Birle. *Bhaugolik chintan ka vikas evam vidhitantra* (भौगोलिक चिन्तन का विकास एवं विधितंत्र).
33. Kaushik, S. D. *Bhaugolik vichardharayon ka itihas evam vidhitantra* (भौगोलिक विचारधाराओं का इतिहास एवं विधितंत्र).
34. Tuan, Y.-F. (1990). *Topophilia: A study of environmental perception, attitudes, and values*. Columbia University Press.

Online Resources-(e-Resources/e-books and e-learning portals)

- www.ignou.ac.in
- www.egyankosh.ac.in
- www.iitm.ac.in
- www.eskillindia.org
- www.eshiksha.mp.gov.in
- www.vlab.co.in
- www.swayam.ac.in
- www.internshala.com

*T= Theory Paper
*P= Practical Paper

PART-D: Assessment and Evaluation		
Suggested Continuous Evaluation Methods: **Maximum Marks:** 100 Marks **Continuous Internal Assessment (CIA):** 30 Marks **End Semester Exam(ESE):** 70 Marks		
Continuous Internal Assessment (CIA): **(By Course Teacher)**	**Internal Test/Quiz-(2):** 20+20 **Assignment/Seminar-** 10 **Total Marks-** 30	**Better marks out of the two Test/Quiz obtained marks in Assignment shall be considered against 30 Marks**
End Semester Exam (ESE):	**Two section-A & B** **Section A: Q1. Objective-10 x1=10 Mark; Q2. Short answer type- 5x4-20Marks** **Section B: Descriptive answer type qts., lout of 2 from each unit-4x10-40Marks**	

*T= Theory Paper
*P= Practical Paper

Geography			
PART – A : Introduction (2025-26)			
Program: Masters in Arts (M.A.)		**Semester-III**	**Session: 2025-2026**
1	Course Code	**GOSE-14 T**	
2	Course Title	**Advanced Geography of India**	
3	Course Type	**DSE**	
4	Pre-requiste (if any)	As per Program	
5	Course Learning Outcomes (CLO)	1. Students will be able to explain the major physiographic divisions, drainage systems, climatic regions of India, and the mechanisms influencing the Indian monsoon and Himalayan cryosphere. 2. They will analyse the distribution and types of natural resources, evaluate agricultural characteristics, technological changes, regional disparities, and the implications for food security in India. 3. Learners will interpret India's population distribution, composition, settlement patterns, population policies, and emerging urban-rural dynamics. 4. They will critically assess the trends in industrial development, transport networks, trade patterns, regional planning, and the impact of natural disasters and globalisation on the Indian economy.	
6	Credit Value	4 Credits	Credit = 15 Hours - Learning & Observation
7	Total Marks	Maximum Marks : 100	Minimum Passing Marks: 40

PART – B : Content of the Course		
Total No. of Teaching Periods (1 Hour per Period) = 60 periods (60 Hours)		
Module/Unit	**Topics (Course Content)**	**No. of Periods**
I	**Major Physiographic Divisions and Climate**: Major Physiographic Regions and their Characteristics; Drainage Systems (Himalayan and Peninsular); Climate: Seasonal Weather Characteristics, Climatic Divisions of India; Indian Monsoon – Mechanism and Characteristics; Jet Streams and Western Disturbances; Himalayan Cryosphere and its significance.	15
II	**Natural Resources and Agriculture**: Types and Distribution of Natural Resources – Soil, Vegetation, Water, Mineral and Marine Resources; Agricultural Characteristics – Production, Productivity, and Yield of Major Food Crops; Agro-Climatic Zones; Green Revolution and Technological Changes; Regional Variations in Agricultural Development; Environmental and Institutional Influences on Indian Agriculture; Food Security and Right to Food.	15
III	**Population and Settlement Geography**: Population Characteristics – Spatial Distribution, Growth and Composition (rural-urban, age, sex, occupational, educational, ethnic and religious); Determinants of Population; Population Policies in India; Urbanization and Settlement Morphology; Socio-spatial patterns and emerging urban-rural continuum.	15
IV	**Industrial Development, Transport & Disasters**: Industrial Development since Independence; Major Industrial Regions and their Characteristics; Industrial Policies in India; Development and Patterns of Transport Networks – Railways, Roadways, Airways, Waterways, Pipelines; Internal and External Trade – Trends, Composition, Directions; Regional Development Planning, Globalisation and its Impact on Indian Economy; Natural Disasters in India – Earthquake, Drought, Flood, Cyclone, Himalayan Hazards.	15
Keywords:	Physiographic Regions, Indian Monsoon, Natural Resources, Indian Agriculture, Population Distribution, Urbanization, Industrial Development, Transport Networks, Trade, Regional Planning, Natural Disasters.	

*T= Theory Paper
*P= Practical Paper

Part – C : Learning Resources

Text Books, Reference Book and Others

1. Ahmed, W., Kundra, A., & Peet, R. (Eds.). (2010). *India's new economic policy: A critical analysis*. Rawat Publications.
2. Chapman, G., & Baker, K. M. (Eds.). (1992). *The changing geography of Asia*. Routledge.
3. Farmer, B. H. (1983). *Introduction to South Asia*. Methuen.
4. Ganguly, S., & DeVotta, N. (Eds.). (2003). *Understanding contemporary India*. Lynne Rienner Publishers.
5. Gole, P. N. (2001). *Nature conservation and sustainable development in India*. Rawat Publications.
6. Johnson, B. L. C. (Ed.). (2001). *Geographical dictionary of India*. Vision Books.
7. Johnson, B. L. C. (1983). *Development in South Asia*. Penguin Books.
8. Khullar, D. R. (2006). *India: A comprehensive geography*. Kalyani Publishers.
9. Krishnan, M. S. (1968). *Geology of India and Burma* (4th ed.). Higginbothams Private Ltd.
10. Nag, P., & Gupta, S. S. (1992). *Geography of India*. Concept Publishing Company.
11. Sharma, T. C. (2003). *India: Economic and commercial geography*. Vikas Publishing House.
12. Singh, J. (2003). *India: A comprehensive and systematic geography*. Gyanodaya Prakashan.
13. Singh, R. L. (Ed.). (1971). *India: A regional geography*. National Geographical Society of India.
14. Spate, O. H. K., Learmonth, A. T. A., & Farmer, B. H. (1979). *India and Pakistan*. Methuen.
15. Subbarao, B. (1959). *The personality of India*. University of Baroda Press.
16. Sukhwal, B. L. (1987). *India: Economic resource base and contemporary political patterns*. Sterling Publication.
17. Tirtha, R. (2002). *Geography of India*. Rawat Publications.
18. Tiwari, R. C. (2007). *Geography of India*. Prayag Pustak Bhawan.
19. Wadia, D. N. (1959). *Geology of India*. Macmillan and Company.

Online Resources-(e-Resources/e-books and e-learning portals)

- www.ignou.ac.in
- www.egyankosh.ac.in
- www.iitm.ac.in
- www.eskillindia.org
- www.eshiksha.mp.gov.in
- www.vlab.co.in
- www.swayam.ac.in
- www.internshala.com

PART-D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks:	**100 Marks**
Continuous Internal Assessment (CIA):	**30 Marks**
End Semester Exam(ESE):	**70 Marks**

Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal Test/Quiz-(2): 20+20** **Assignment/Seminar- 10** **Total Marks- 30**	**Better marks out of the two Test/Quiz obtained marks in Assignment shall be considered against 30 Marks**
End Semester Exam (ESE):	**Two section-A & B** **Section A: Q1. Objective-10 x1=10 Mark; Q2. Short answer type- 5x4-20Marks** **Section B: Descriptive answer type qts., lout of 2 from each unit-4x10-40Marks**	

*T= Theory Paper
*P= Practical Paper

Geography			
PART – A : Introduction (2025-26)			
Program: Masters in Arts (M.A.)		**Semester-III**	**Session: 2025-2026**
1	Course Code	**GOSE-15 T**	
2	Course Title	**Population Geography**	
3	Course Type	**DSE**	
4	Pre-requiste (if any)	As per Program	
5	Course Learning Outcomes (CLO)	1. Students will be able to explain the scope, significance, and evolution of Population Geography, its concepts, and its relationship with other social science disciplines. 2. They will analyse the patterns, factors, and measures of population distribution and growth globally and in India, and interpret classical and modern theories of population change. 3. Learners will assess population composition, fertility and mortality indicators, and evaluate Human Development Index (HDI) patterns at global and national scales. 4. They will critically examine migration types, theories, estimation methods, population-resource relationships, and India's population policies and regionalisation approaches.	
6	Credit Value	4 Credits	Credit = 15 Hours - Learning & Observation
7	Total Marks	Maximum Marks : 100	Minimum Passing Marks: 40

PART – B : Content of the Course		
Total No. of Teaching Periods (1 Hour per Period) = 60 periods (60 Hours)		
Module/Unit	**Topics (Course Content)**	**No. of Periods**
I	**Foundations of Population Geography:** Definition, scope and significance of Population Geography; Relationship with other disciplines in Social Sciences; Historical development in Western countries and India; Sources of population data – Census, Vital registration, NSS, and GIS-based sources; Evolution and methodology of Census in India; Basic concepts – fertility, mortality, migration; Concepts of ageing, young, stationary and stable population.	15
II	**Distribution and Growth of Population:** Concept and types of population density; Factors affecting population distribution; Global distribution of population with special reference to Europe, Asia and India; Measures of population growth – decadal and annual growth; Prehistoric to modern population growth trends; Regional variations in population growth in India; Theories of population growth – Malthus, Marx, Optimum theory, Demographic transition theory.	15
III	**Population Composition and Human Development:** Population composition – age, sex, rural-urban residence, literacy and education, occupational structure; Factors influencing population composition; World and Indian patterns of composition; Fertility and mortality – indices, significance, influencing factors; Global and Indian patterns; Human Development Index (HDI) – components and spatial patterns.	15
IV	**Migration, Population Policy and Regionalization:** Migration – types, causes, characteristics; Theories of migration – Ravenstein, Everett Lee; Estimation methods of internal migration; Major international and internal migration trends; Population-resource relationship – over, under, optimum population; Population-resource regions; Concept and methods of delimiting population regions; Population regions of India; India's Population Policies – evolution and National Population Policy (2000).	15

*T= Theory Paper
*P= Practical Paper

Keywords :	**Keywords:** Population Geography, Population Distribution, Population Growth, Population Composition, Fertility, Mortality, Migration, Population Theories, Population Policy, Human Development Index (HDI).	

Part – C : Learning Resources

Text Books, Reference Book and Others

1. Ararwala, S., & Sinha, D. (1977). *India's population problems*. Tata McGraw-Hill Publishing Co. Ltd.
2. Carter, H. (1981). *Urban geography* (3rd ed.). Arnold-Heinemann.
3. Chandna, R. C. (2005). *Population geography*. Kalyani Publishers. (English and Hindi)
4. Clout, H. D. (1972). *Rural geography: An introductory survey*. Pergamon Press.
5. Dickinson, R. F. (1968). *City and region: A geographical interpretation*. Routledge and Kegan Paul Ltd.
6. Diddee, J. (1997). *Indian medium towns*. Rawat Publications.
7. Flint, C., & Flint, D. (1999). *Urbanisation: Changing environments*. Collins.
8. Garnier, J. B. (1966). *Geography of population*. Commonwealth Printing Press Ltd.
9. Ghosh, S. (1998). *Introduction to settlement geography*. Orient Longman Ltd.
10. Hardoy, J. E., Mitlin, D., & Satterthwaite, D. (1992). *Environmental problems in the world cities*. Earthscan Publications Ltd.
11. Hassan, M. I. (2005). *Population geography*. Rawat Publications.
12. Herbert, D., & Thomas, C. (1982). *Urban geography: A first approach*. John Wiley & Sons.
13. Husain, M. (1994). *Human geography*. Rawat Publications.
14. Johnston, R. J. (2000). *The dictionary of human geography*. Blackwell.
15. Knox, P. (1982). *Urban social geography*. Longman Scientific and Technical.
16. Kuppuswamy, B. (1975). *Population and society in India*. Popular Prakashan.
17. Law, N. S., & Smith, D. (1991). *Decision making geography*. Stanley Thornes Publishers Ltd.
18. Mandal, R. B. (2000). *Urban geography: A textbook*. Concept Publishing Company.
19. Mandal, R. B. (1988). *Systems of rural settlements in developing countries*. Concept Publishing Company.
20. Mandal, R. B., Uyanga, J., & Prasad, H. (2007). *Introductory methods in population analysis*. Concept Publishing Company.
21. Misra, H. M. (Ed.). (1987). *Contributions to Indian geography (Vol. 9): Rural geography*. Heritage Publishers.
22. Mohan, S. (2005). *Urban development and new localism*. Rawat Publications.
23. Pacione, M. (2001). *Urban geography*. Routledge.
24. Panda, P. C. (1990). *Geomorphology and rural settlements in India*. Chugh Publications.
25. Racine, J. (Ed.). (1981). *Calcutta*. Concept Publishing Company.
26. Ramachandran, R. (1989). *Urbanisation and urban systems in India*. Oxford University Press.
27. Sharma, R. N., & Sita, K. (2001). *Issues in urban development*. Rawat Publications.
28. Short, J. (1984). *An introduction to urban geography*. Routledge.
29. Singh, R. Y. (1994). *Geography of settlements*. Rawat Publishing Company.
30. Singh, R. L. (Ed.). (1976). *Geographic dimensions of rural settlements*. National Geographical Society of India.
31. Singh, R. D. (1985). *Population structure of Indian cities*. Inter-India Publications.
32. Smith, D. M. (1980). *Human geography: A welfare approach*. [Publisher needed].
33. बघेल, अ. (2002). *अनुसूचित जातियों एवं अनुसूचि*
34. *त जनजातियों में प्रजननता प्रतिरूप: छत्तीसगढ़ राज्य के रायपुर संभाग के विशेष संदर्भ में* [Anusuchit Jatiyon evam Janjatiyon mein Prajananta Pratiroop: Raipur Sambhag, Chhattisgarh]. पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर.
35. बघेल, अ. (2004). *शिशु मर्त्यता* [Shishu Mrityuta]. सिंघई पब्लिशर्स एण्ड डिस्ट्रीब्यूटर, रायपुर.
36. शर्मा, स. (2002). *औद्योगिक नगरों में जनसंख्या आप्रवास (भिलाई एवं कोरबा नगर के विशेष संदर्भ में)* [Audyogik Ngaron mein Jansankhya Apravas: Bhilai evam Korba Nagar ke Vishesh Sandarbh mein]. पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर.
37. शर्मा, स. *छत्तीसगढ़ बेसिन में ग्रामीण शिशु मर्त्यता 'प्रतिरूप जनसंख्या भूगोल* [Chhattisgarh Basin mein Gramin Shishu Mrityuta: Pratiroop Jansankhya Bhugol]. [Publisher: पंडा, बी.पी.]
38. ओझा, र. *जनसंख्या भूगोल*

*T= Theory Paper
*P= Practical Paper

39. हीरालाल. *जनसंख्या भूगोल*
40. चन्दना, आर. सी. *जनसंख्या भूगोल* [
41. रामदेव. *जनसंख्या भूगोल*

Online Resources-(e-Resources/e-books and e-learning portals)

- www.ignou.ac.in
- www.egyankosh.ac.in
- www.iitm.ac.in
- www.eskillindia.org
- www.eshiksha.mp.gov.in
- www.vlab.co.in
- www.swayam.ac.in
- www.internshala.com

PART-D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:		
Maximum Marks:	**100 Marks**	
Continuous Internal Assessment (CIA):	**30 Marks**	
End Semester Exam(ESE):	**70 Marks**	
Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal Test/Quiz-(2): 20+20** **Assignment/Seminar- 10** **Total Marks- 30**	**Better marks out of the two Test/Quiz obtained marks in Assignment shall be considered against 30 Marks**
End Semester Exam (ESE):	**Two section-A & B** **Section A: Q1. Objective-10 x1=10 Mark; Q2. Short answer type- 5x4-20Marks** **Section B: Descriptive answer type qts., lout of 2 from each unit-4x10-40Marks**	

*T= Theory Paper
*P= Practical Paper

Geography				
PART – A : Introduction (2025-26)				
Program: Masters in Arts (M.A.)		**Semester-III**		**Session: 2025-2026**
1	Course Code	GOSE-16 T		
2	Course Title	**Advanced Cartography**		
3	Course Type	**DSE**		
4	Pre-requiste (if any)	As per Program		
5	Course Learning Outcomes (CLO)	1. Students will understand the fundamental properties of the Earth as a sphere, including coordinate systems and grid references used in geospatial measurements. 2. They will acquire practical knowledge of surveying techniques, including curvature corrections, GPS applications, trigonometric surveying, and height calculation through levelling. 3. Learners will gain competence in selecting, classifying, and deriving formulae for appropriate map projections for accurate spatial representation. 4. They will develop skills in the science of cartography, covering its history, data sources, thematic and atlas mapping, and the use of modern computer-assisted cartographic techniques.		
6	Credit Value	4 Credits		Credit = 15 Hours -Learning & observation
7	Total Marks	Maximum Marks : 100		Minimum Passing Marks: 40

PART – B : Content of the Course		
Total No. of Teaching Periods (1 Hour per Period) = 60 periods (60 Hours)		
Module/Unit	**Topics (Course Content)**	**No. of Periods**
I	**Measuring the Earth:** Properties of the sphere; The Earth – its shape and size; Coordinate reference system on the sphere; Celestial coordinates – Equatorial and Horizon systems; Geographical coordinates and grid system; UTM grids.	15
II	**Surveying Techniques:** Curvature of the Earth and its effect on survey and levelling; Geographical Positioning System (GPS); Trigonometrical surveying; Calculation of height by levelling.	15
III	**Map Projections:** Choice and classification of map projections; Derivation of formulae for construction of conical equal-area projections with one and two standard parallels (Lambert's and Albers'); International Map Projection.	15
IV	**Science of Cartography:** History and development of cartography; Cartography and communication theory; Sources of cartographic data; Techniques and methods for preparing diagrams and maps; Thematic mapping – soil and vegetation maps, environmental maps, population maps (rural and urban); Atlas mapping; Pre- and post-census mapping; Automation and computer cartography.	15
Keywords :	Earth Measurement, Coordinate Systems, Surveying Techniques, GPS, Map Projections, Cartography, Thematic Mapping, Atlas Mapping, Computer Cartography.	

*T= Theory Paper
*P= Practical Paper

Part – C : Learning Resources

Text Books, Reference Book and Others

1. चौनियाल, डी. डी. (2023). सुदूर संवेदन और भू भौगोलिक सूचना प्रणाली के सिद्धांत, शारदा पुस्तक भवन, प्रयागराज.
2. Bailey, T., & Gatrell, A. C. (1995). *Interactive spatial data analysis*. Longman.
3. Dorling, D., & Fairborn, D. (1997). *Mapping: Ways of representing the world*. Longman.
4. Fraser Taylor, D. R. (1980). *The computer in contemporary cartography*. John Wiley and Sons.
5. Fraser Taylor, D. R. (Ed.). (1983). *Graphic communication and design in contemporary cartography*. John Wiley and Sons.
6. Griffith, D. A., & Amrhein, C. G. (1997). *Multivariate statistical analysis for geographers*. Prentice Hall.
7. Keates, J. S. (1973). *Cartographic design and production*. Longman Group Ltd.
8. Monkhouse, F. J., & Wilkinson, H. R. (1962). *Maps and diagrams*. Methuen and Company Ltd.
9. Nag, P. (Ed.). (1984). *Census mapping survey*. Concept Publishing Company.
10. Nair, N. B. (1996). *Encyclopaedia of surveying, mapping and remote sensing*. Rawat Publications.
11. Raisz, E. (1962). *Principles of cartography*. McGraw Hill.
12. Misra, R. P., & Ramesh, A. (1999). *Fundamentals of cartography*. Concept Publishing.
13. Rhind, B., & Adams, T. (Eds.). (1983). *Computers in cartography*. British Cartographic Society.
14. Robinson, A. H., Sale, R., Morrison, J., & Muehrcke, P. C. (1984). *Elements of cartography* (6th ed.). John Wiley & Sons.
15. Shaw, G., & Wheeler, D. (1994). *Statistical techniques in geographical analysis*. Prentice Hall.
16. Singh, R. L., & Singh, R. P. B. (1993). *Elements of practical geography*. Kalyani Publishers.
17. Strahler, A. N. (1971). *The earth sciences*. Harper and Row Publishers.
18. Thrower, N. (1996). *Maps and civilisation: Cartography, culture and society*. University of Chicago Press.
19. Unwin, D. (1982). *Introductory spatial analysis*. Methuen and Company Ltd.

Online Resources-(e-Resources/e-books and e-learning portals)

- www.ignou.ac.in
- www.egyankosh.ac.in
- www.iitm.ac.in
- www.eskillindia.org
- www.eshiksha.mp.gov.in
- www.vlab.co.in
- www.swayam.ac.in
- www.internshala.com

PART-D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks:	**100 Marks**	
Continuous Internal Assessment (CIA):	**30 Marks**	
End Semester Exam(ESE):	**70 Marks**	
Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal Test/Quiz-(2): 20+20** **Assignment/Seminar- 10** **Total Marks- 30**	**Better marks out of the two Test/Quiz obtained marks in Assignment shall be considered against 30 Marks**
End Semester Exam (ESE):	**Two section-A & B** **Section A: Q1. Objective-10 x1=10 Mark; Q2. Short answer type- 5x4-20Marks** **Section B: Descriptive answer type qts., lout of 2 from each unit-4x10-40Marks**	

*T= Theory Paper
*P= Practical Paper

Geography			
PART – A : Introduction (2025-26)			
Program: Masters in Arts (M.A.)		**Semester-III**	Session: 2025-2026
1	Course Code	**GOSE-17 T**	
2	Course Title	**Climatology and Hydrology**	
3	Course Type	**DSE**	
4	Pre-requiste (if any)	As per Program	
5	Course Learning Outcomes (CLO)	1. Understand the fundamentals of Climatology, including atmospheric composition, structure, and dynamics, as well as the mechanisms of insolation and heat balance. 2. Explain atmospheric circulation and weather systems, such as jet streams, monsoons, air masses, cyclones, and ENSO phenomena. 3. Analyze climatic classification systems (Koeppen and Thornthwaite) and describe the characteristics of major global climate types. 4. Evaluate the causes and impacts of climate change and global warming, supported by historical and geological evidence, and apply climatology to agriculture, health, and urban planning. 5. Demonstrate comprehensive understanding of hydrological processes, including the hydrological cycle, precipitation, evaporation, groundwater and surface water dynamics, runoff, and hydrograph interpretation.	
6	Credit Value	4 Credits	Credit = 15 Hours - Learning & Observation
7	Total Marks	Maximum Marks : 100	Minimum Passing Marks: 40

PART – B : Content of the Course		
Total No. of Teaching Periods (1 Hour per Period) = 60 periods (60 Hours)		
Module/Unit	**Topics (Course Content)**	**No. of Periods**
I	**Fundamentals of Climatology** - Nature and scope of Climatology - Relationship with Meteorology - Composition and structure of the atmosphere - Insolation and factors affecting it - Earth's heat budget - Stability and instability - Greenhouse effect - Horizontal and vertical distribution of temperature	15
II	**Atmospheric Dynamics and Weather Systems** - Jet streams and general circulation of the atmosphere - Air masses and fronts – origin, types, and impacts - Cyclones – tropical and temperate - Monsoon winds and mechanism - ENSO phenomena – El Niño and La Niña - Acid rain – causes and impacts	15
III	**Climate Classification and Climatic Change** - Principles of physical and synoptic meteorology - Classification of climates – Koeppen and Thornthwaite systems - Characteristics of major climatic types – Tropical, Temperate, Desert, and Mountain climates - Applied Climatology – relevance and application in agriculture, health, and urban planning - Climate change in geological and historical times – evidences and causes - Global warming – causes and consequences	15
IV	**Hydrology and Water Resources** - Hydrology – meaning, scope, and development - Hydrological cycle and human influences - Precipitation – types and measurements - Evaporation and evapotranspiration – estimation and controlling factors - Infiltration and soil moisture zones - Groundwater – occurrence, storage, recharge, and discharge - Runoff – sources, components, and influencing factors - River regimes – types and characteristics - Hydrograph – components and separation techniques	15
Keywords :	Climatology, Atmospheric Dynamics, Weather Systems, Climate Classification, Climatic Change, Hydrology, Water Resources	

*T= Theory Paper
*P= Practical Paper

Part – C : Learning Resources

Text Books, Reference Book and Others

1. Ackerman, S.A. & Knox, J.A. (2012). Meteorology: Understanding the Atmosphere. Jones & Bartlett Learning, London.
2. Ahrens, C.D. (2012). Essentials of Meteorology: An Invitation to the Atmosphere. Cengage Learning, Boston.
3. Atkinson, B.W. (Ed.). (1981). Dynamical Meteorology: An Introductory Selection. Methuen, London.
4. Barry, R.G. & Chorley, R.J. (2009). Atmosphere, Weather and Climate. Routledge, London. Also earlier edition: Barry, R.G. & Chorley, R.J. (1998). Routledge, London and New York.
5. Brockwell, P.J. & Davis, R.A. (2016). Time Series and Forecasting. Springer.
6. Chandrasekar, A. (2010). Basics of Atmospheric Science. PHI Learning Pvt. Ltd., New Delhi.
7. Critchfield, H.J. (1983/2010 Reprint). General Climatology. Prentice Hall India Ltd., New Delhi.
8. India Meteorological Department. (1968). Climatological Tables of Observatories in India. Govt. of India.
9. Oliver, J.E. & Hidore, J.J. (2002). Climatology: An Atmospheric Science. Pearson Education India.
10. Rohli, R.V. & Vega, A.J. (2013). Climatology. Jones & Bartlett Publishers, Massachusetts.
11. Singh, Savindra. Climatology. Pravalika Publications, Allahabad. (in Hindi)
12. Thompson, R.D. & Perry, A. (Eds.). (1997). Applied Climatology: Principles and Practice. Routledge, London.
13. Trewartha, G.T. & Horne, L.H. (1980). An Introduction to Climate. McGraw-Hill.
14. Lal, D.S. (1986). Climatology. Chaitanya Publishing House, Allahabad. (English & Hindi)
15. सिंह, सविंद्र. (2024) जलवायु विज्ञान, प्रवालिका पब्लिकेशन्स, इलाहाबाद।
16. तिवारी, अनिल कुमार. जलवायु विज्ञान. राजस्थान हिन्दी ग्रंथ अकादमी।

Online Resources-(e-Resources/e-books and e-learning portals)

- https://www.imdpune.gov.in/training/training%20notes/Climatology-IMTC.pdf
- https://www.bkbcollege.in/upload/dpt book/1669712576.pdf
- https://www.scribd.com/document/649484125/CLIMATOLOGY-BY-DS-LAL
- www.ignou.ac.in
- www.egyankosh.ac.in
- www.iitm.ac.in
- www.eskillindia.org
- www.eshiksha.mp.gov.in
- www.vlab.co.in
- www.swayam.ac.in
- www.internshala.com

PART-D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks:	**100 Marks**	
Continuous Internal Assessment (CIA):	**30 Marks**	
End Semester Exam(ESE):	**70 Marks**	
Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal Test/Quiz-(2): 20+20** **Assignment/Seminar- 10** **Total Marks- 30**	**Better marks out of the two Test/Quiz obtained marks in Assignment shall be considered against 30 Marks**
End Semester Exam (ESE):	**Two section-A & B** **Section A: Q1. Objective-10 x1=10 Mark; Q2. Short answer type- 5x4-20Marks** **Section B: Descriptive answer type question, out of 2 from each unit-4x10-40Marks**	

*T= Theory Paper
*P= Practical Paper

Fourth Semester

Geography			
PART – A : Introduction (2025-26)			
Program: Masters in Arts (M.A.		**Semester-IV**	**Session: 2025-2026**
1	Course Code	**GOSC- 12 P**	
2	Course Title	**Research Work and Dissertation**	
3	Course Type	**DSC**	
4	Pre-requiste (if any)	As per Program	
5	Course Learning Outcomes (CLO)	**At the end of this course, student will be able to** 1. Understand the Fundamentals of Research. 2. Formulate Research Problems and Hypotheses. 3. Review and Synthesize Literature. 4. Design Research Methodologies. 5. Interpret and Present Research Findings. 6. Demonstrate Ethical Research Practices.	
6	Credit Value	6 Credits	Credit = 15 Hours - Learning & Observation
7	Total Marks	Maximum Marks : 150	Minimum Passing Marks: 60

PART – B : Content of the Course

Total No. of Teaching Periods (1 Hour per Period) = 90 periods (90 Hours)

Module/Unit	Topics (Course Content)	No. of Periods
I	**Review of Literature:** Understanding the importance of reviewing existing literature and identifying relevant sources. Searching Literature: Developing skills in effectively searching for and retrieving relevant research papers, articles, and other scholarly materials. Synthesize and summarize the literature, identifying key findings, and highlighting research gaps. Identifying Research Gaps: Determining areas where further research is needed based on the existing literature. Formulating Research Questions, Types of Research: descriptive vs. analytical, applied vs. fundamental, quantitative vs. qualitative, and conceptual vs. empirical. Scientific Method in Geography, Essential Qualities of a Researcher	20
II	**Selection of Problem, Data Collection,** Meaning and objective of selecting a research topic, types of data collection, Surveys using structured tools; GPS/mobile data collection; secondary data from official records Data tabulation and statistical analysis; thematic maps using Excel/GIS; diagrammatic representation.	20
III	**Hypothesis, Research Design:** meaning and role of hypothesis in research, types of hypothesis, hypothesis formulation, hypothesis testing: t- test, chi- test, definition and importance of research deign, problem selection, objectives, methodology, characteristics of good research design.	25
IV	**Research Writing, Analysis and Interpretation:** Structure of research report, Quantitative and Qualitative data Analysis. Writing style and clarity, citation and referencing method, ethical aspects in research writing.	25
V	**Dissertation and Viva-Voice:**	
Keywords:	Research Proposal, Socio-Economic Survey, Field Work, Data Collection, Statistical Analysis, Themat Mapping, GIS, Dissertation Writing, Report Presentation.	

*T= Theory Paper
*P= Practical Paper

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Part – C : Learning Resources

Text Books, Reference Book and Others

1. Kothari, C. R. (2004). *Research methodology: Methods and techniques* (2nd ed.). New Age International.
2. Kumar, R. (2019). *Research methodology: A step-by-step guide for beginners* (5th ed.). SAGE Publications.
3. Dawson, C. (2009). *Introduction to research methods: A practical guide for anyone undertaking a research project* (4th ed.). How To Books.
4. Bhattacharyya, D. K. (2009). *Research methodology* (2nd ed.). Excel Books.
5. Mukherjee, N. (2002). *Participatory rural appraisal: Methods and applications in rural planning*. Concept Publishing.
6. Young, P. V. (2009). *Scientific social surveys and research* (4th ed.). Prentice Hall of India.
7. Goode, W. J., & Hatt, P. K. (2006). *Methods in social research*. McGraw-Hill.
8. Singh, R. L. (2002). *Practical geography*. Kalyani Publishers.
9. Saravanavel, P. (1987). *Research methodology*. Kitab Mahal.
10. Mahmood, A. (1977). *Statistical methods in geographical studies*. Rajesh Publications.
11. Pal, S. K. (1998). *Statistics for geoscientists: Techniques and applications*. Concept Publishing.
12. Burrough, P. A., & McDonnell, R. A. (1998). *Principles of geographical information systems* (2nd ed.). Oxford University Press.
13. DeMers, M. N. (2008). *Fundamentals of geographic information systems* (4th ed.). Wiley.
14. Heywood, I., Cornelius, S., & Carver, S. (2011). *An introduction to geographical information systems* (4th ed.). Pearson Education.
15. Walliman, N. (2011). *Your research project: Designing and planning your work* (3rd ed.). SAGE Publications.
16. Turabian, K. L. (2018). *A manual for writers of research papers, theses, and dissertations* (9th ed.). University of Chicago Press.
17. Bailey, K. D. (1994). *Methods of social research* (4th ed.). Free Press.
18. Gibaldi, J. (2009). *MLA handbook for writers of research papers* (7th ed.). Modern Language Association. *(Note: APA 7 should be followed if specified by department)*

Online Resources-(e-Resources/e-books and e-learning portals)

- www.ignou.ac.in
- www.egyankosh.ac.in
- www.iitm.ac.in
- www.eskillindia.org
- www.eshiksha.mp.gov.in
- www.vlab.co.in
- www.swayam.ac.in
- www.internshala.com

PART-D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks:	**100 Marks**
Continuous Internal Assessment (CIA):	**30 Marks**
End Semester Exam(ESE):	**70 Marks**

Continuous Internal Assessment (CIA): (By Course Teacher)	**Dissertation Presentation: 20** **Assignment: 10** **Total Marks:- 30**	**Assignment and Presentation shall be considered against 30 Marks**
End Semester Exam (ESE):	**A. Evaluation of Dissertation by assigned teacher: 50 Marks** **B. Dissertation Viva: 20**	**Managed by Course teacher as per the syllabus.**

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*P= Practical Paper

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