



**MAHARAJA SURAJMAL BRIJ UNIVERSITY**

**BHARATPUR**

**SYLLABUS**

**M.A./M.Sc. GEOGRAPHY**

**Semester Scheme**

**I/II Semester Exam 2017-18**

**III/IV Semester Exam 2018-19**

*(S.L. Sinha)*

*M. Singh*  
*(Dr. M.S. Meena)*  
*04.12.2017*

*Dr. P. Meena*  
*(O.P. Solanki)*

*अकादमिक प्रभारी*

## M.A./M.Sc. GEOGRAPHY

### (Semester Scheme)

#### Scheme of Examination for I Semester

##### Course and Internal Assessment:-

- ❖ The student will require to earn Minimum 120 credits out of total 144 credits, in four semesters, for PG degree.
- ❖ Each student has to earn minimum 30 credits per semester (i.e. 120 credits in four semester for PG degree).
- ❖ Each semester of PG courses shall have credits. There will be three core papers and two elective papers (5 credits each) and one core laboratory work (6 credits each).
- ❖ Core Papers (Theory and Practical) are compulsory papers for the students of M.A. / M.Sc. (Geography).
- ❖ The Internal Assessment component comprises of assessment of student's performance on the basis of factors like Attendance, Class Room Participation, Quiz, Home Assignment etc.

##### Examination Pattern:-

- ❖ Each theory paper CCC and ECC shall carry 100 marks.
- ❖ The CCC and ECC will be of 3(Three) hrs duration for each theory paper and 4 hrs duration for each practical paper.

##### Theory Questions will be in Two Parts

- ❖ Part A of theory Paper shall contain 10 (ten) Short Answered Questions, covering entire Syllabus and each question will carry 2(two) marks i.e. part A will be of total 20 marks.

Part B of the Question paper will consist of six (06) questions (two questions from each section). Student will have to attempt four (04) questions in all selecting at least one question from each section. Each question will carry 20 marks i.e. total of 80 marks

- ❖ Each Practical CCC ~~and ECC~~ will be of four hours duration and involve written test on Lab work (04 questions) 60 Marks and Record work and Viva – voce 40 Marks (30+10)

The details of the courses with code, title and the credits assigned are given in the table (appended).

##### Course Category:-

CCC: Compulsory Core Course

ECC: Elective Core Course

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## M.A./M.Sc. GEOGRAPHY

### First Semester :-

Sr. No.	Sub. Code	Course Title	Course category	Credit	Hours Per Week
1.	Geo 101	Evolution of Geographical Thought (up to 1800 ad)	CCC	5	04
2.	Geo 102	Structural and Dynamic Basis of Geomorphology	CCC	5	04
3.	Geo 103	Principles and Theory of Economic Geography	CCC	5	04
4.	Geo 104	Practical	CCC	6	07
<b>Elective any Two Papers From The Following :-</b>					
5.	Geo 105	Man and Natural Environment	ECC	5	04
6.	Geo 106	Cultural Geography	ECC	5*	04
7.	Geo 107	Population Geography	ECC	5	04
8.	Geo 108	Quantitative Techniques in Geography	ECC	5	04
9.	Geo 109	Geography of Rural Development	ECC	5	04
10.	Geo 110	Advanced geography of Monsoon Asia	ECC	5	04

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# I SEMESTER

PAPER CODE : GEO101: EVOLUTION OF GEOGRAPHICAL THOUGHT (UP TO 1800 AD)

## Section-A

Beginnings and geosopical nature of geography : ancient Indian geographical thought (the puranic geography), ancient classical period: contribution greek scholar (Herodotus and Eratosthenes) Greeko Roman scholar (posidonius) Roman scholar (Strabo and Ptolemy).

## Section -B

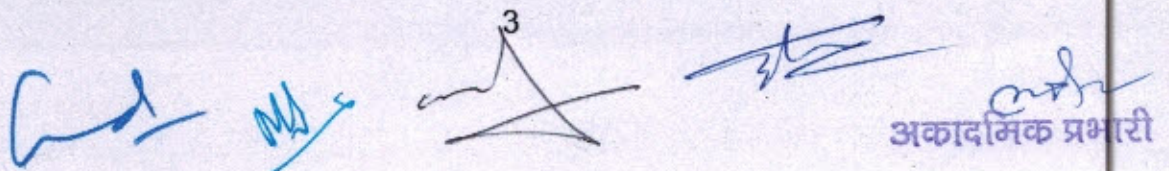
Implication of dark age in Europe, development and rature of geography during medieval period : contributions of Al-Biruni a Al Muqaddassi ,Al-Masudi and Al Idris , Ibn Baltuta and Ibn khaldun .

## Section-C

Impact of renaissance on geography: main invention , discoveries and explorations cosmographics tradition . and position of geograpy among sciences : Sebastian munster, Phillp cluverious, Nathanael carpenter ,Varenius, Anton Friedrich Bushing-and Immanule kant .

## Books Recommended :-

- Adhkari ,S. 2009:Fundamentals of geographical Thought , chaitanya Publishing House ,Allahabad .
- बंसल , सुरेश चन्द 2008: भौगोलिक चिन्तन के मूल तत्व । मीनाक्षी प्रकाशन, मेरठ ।
- Dickinson,R.E .1967. The Markers of Modern geography . Routledge & Kegan paul Limited London.
- Dear, MJ.and Flusty , S.(ed.) 2002 : The spaces of post modernity : Readings in Human Geography , Blackwell publishers Ltd, oxford .
- Dikshit , R.D.2004. Geographical Thought . A critical History of ideas . prentice-Hall of India , New Delhi(in English and Hindi ) .
- जैन एस.एस. 2005: भौगोलिक चिन्तन एवं विधि तंत्र। साहित्य भवन पब्लिकेशन , आगरा ।
- जाट, वी.सी 2013: भौगोलिक चिन्तन का इतिहास । मलिक एण्ड कम्पनी , जयपुर ।
- Hardshome ,R .1987 : Perspective on the nature of geography ,scientific publishers, jodhpur(copyright 1959 by the c ssociation of American)
- Holt-jensen ,A. 1988: geography : History and concepts -A student guide .sage, Los Angeles (Fourth Edition)
- Jame , P.E. : All possible worlds 1972 : A History of Geographical Ideas :odessey press , 622 pages .
- Johnston ,R ,Gregory D, Pratt G .Watts M. and Whatmore S.(2003): The Dictionary of human geography Blackwell Publishers , oxford . 5<sup>th</sup> Edition.
- कौशिक एस.डी. 2005-06: भौगोलिक विचारधाराएं एवं विधि तंत्र । रस्तोगी पब्लिकेशन , मेरठ, आठवा संस्करण पुनर्मुद्रित ।
- मौर्य एस.डी. 2007: भौगोलिक चिन्तन का इतिहास । प्रयाग पुस्तक भवन , इलाहाबाद ।
- Majid .H. 2004 . Evolution ofn geographical Thought . Rawat Publications , jaipur (Reprinted 2007-Revised & Enlarged).
- सक्सेना , एल.के. व तिवारी , ए.के. 2003. भौगोलिक चिन्तन । राजस्थान हिन्दी ग्रन्थ अकादमी , जयपुर

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**Section-A**

Interior structure of the earth. thermal state of earth's interior, isostasy : views of Airy, Pratt, Hayford and Bowie, Joly and Holmes, origin of the continents and oceans, earth movements : epeirogenic and orogenic – Mountain building theories of Jeffreys, Kober, Joly, Daly, Holmes and plate tectonics.

**Section -B**

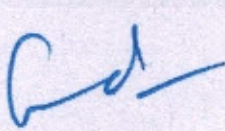
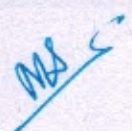
Definition, nature and scope of geomorphology, major concepts in geomorphology, Denudation : weathering, mass movements erosion and sediment regimes, various models of landscape evolution : Davis, Penck, King.

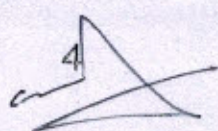
**Section-C**

Topographies : fluvial, glacial- periglacial, Aeolian, karst and coastal, element of slope and various models of slope development: Wood, Davis, Penck, King, Strahler.

**Books Recommended:-**

- Chorley, R.J. 1992 : spatial Analysis in geomorphology. Methuen, London.
- Cooke, R.U. and Doornik, J.C.(1974): geomorphology in Environmental Management –A introduction. Clarendon press, Oxford.
- Dury, G.H., 1959: The Face of earth. Penguin Harmondsworth.
- Fairbridge, R.W. 1986: Encyclopedia of geomorphology. Reinhold, New York.
- Gamer, H.F. 1974: the origin of landscape-A synthesis of geomorphology. Oxford university press London.
- Goudie, A. 1993: the nature of environment. Oxford & Blackwell, London.
- जाट, वी.सी. 2004 : भू-आकृति विज्ञान । रावत पब्लिकेशन, जयपुर।
- Mitchell, C.W. 1973 Terrain evaluation. Longman, London.
- Ollier, C.D. 1979 : weathering. Longman, London.
- Pitty, A.F. 1971: introduction to geomorphology. Methuen, London.
- प्रदारा, गायत्री 2004 : भू-आकृति विज्ञान । शारदा पुस्तक भवन, इलाहाबाद।
- Sparks, B.W. 1960: Geomorphology. Longman London.
- Sharma, H.S.(ed) 1980 perspectives in geomorphology. Concept publishing company. New Delhi (VOL 1 to 4).
- Skinner, B.J. & Porter, S.C. 1995: The dynamic earth. John Wiley, New York.
- Stoddart, D.R.(ed) 1996: process and Form in Geomorphology. Routledge. New York.
- Singh, S. 1998.: Geomorphology, Prayag publication, Allahabad
- Spark, B.W. 2004: Geomorphology, Longmans, London
- Thornbury, W.D. 1960: principles of geomorphology. John Wiley, New York
- Young, A. 1972: Slopes. Longmans, London.





  
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Paper code: Geo 103: Principles and Theory of Economic Geography

**Section-A**

Changing nature of economic geography, approaches to economic geography, agricultural typology-with special reference to: subsistence plantation agriculture, mediterranean agriculture, mixed farming, commercial grain farming, livestock rearing.

**Section-B**

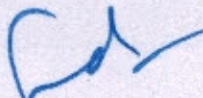
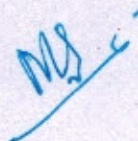
Energy resources: detailed study of conventional and non-conventional energy resources, spatial patterns and supply problems, Industries: iron & steel, aluminium industry, paper and pulp, cotton textile, chemical fertilizer and auto mobile.

**Section-C**

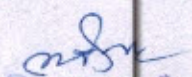
Decision making process: location decision-behavioural view, international trade: major regional trade and economic integration block, major trends and patters, economic region: concept and methods of delineation, need of economic regionalization for area development and planning-economic regions of India.

**Books Recommended :-**

- Alexander, J.W. 2001: Economic Geography. Prentice Hall of India, New Delhi.  
Bengston, N.A. and Royen, M.V.: Fundamentals of Economic Geography. (Prentice Hall New York).  
Boesh, H.: A Geography of World Economy.  
Chapman, K and Walker, D. 1991: Industrial Location: Principles and Policies... Blackwell Oxford.  
Grigg, D. 1995: An Introduction to Agricultural Geography. Second edition, Routledge, London.  
James, O. W. and Peter, O. M. 1986: Economic Geography. John Wiley and Sons, New York.  
Jarret, H. R. 1977: A Geography of Manufacturing. Trans-Atlantic Publishers, London.  
Leurg, G.C. and Morgan, G.C. 1982: Human and Economic Geography, Oxford University Press, London.  
Lloyd, P.E. and Dicken, P. 1977: Location in Space: A Theoretical Approach to Economic Geography. Harper & Row, Publishers, London.  
Mandal, R. B: 1982: Land Utilization - Theory and Practice. Concept Publishing Company, New Delhi.  
Prasad, Rama 2007: कृषि परिस्थितिकी एवं नियोजन। राधा प्रकाशन, नई दिल्ली।  
Scott, A. J. 1988: New Industrial Spaces. Pion, London.  
Shafi, M. 2000: Agricultural Geography of South Asia. Macmillan, New Delhi.  
Singh J. and Dhillon, S.S. 2004: Agricultural Geography. Tata Mc-Graw-Hill, New Delhi.  
Singh, Kashi Nath and Siddiqui, A.R. 2012: Economic Geography, Prayag Pustak Bhawan, Allahabad.  
Smith, D. M. 1981: Industrial Location - An Economic Geographical Analysis. John Wiley, New York.  
Wheeler, J.O. and Muller, O.P. 1995: Economic Geography. John Wiley, New York.



  
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## PAPER CODE: GEO 104 : PRACTICAL

Minimum Marks : 36	Bifurcation of Marks	Max. Mark :100
Written Test on Lab .Work( 4 Questions)	60	4 Hours
Record Work & Viva-Voce	10+5	
Survey & Viva - Voce	10+5	
Internal Assessment	10	
Total	100	

N.B.: In written test there shall be 2 questions from each section. candidates have to attempt 4 questions selecting at least one question from each section .All question carry equal marks . Examination be conducted in batches of not more than 20 candidates in any case. 09 Hours for teaching practicals be provided for a batch of 20 students per week.

### Section-A

Elementary trigonometry, classification of map projections and their specification uses. Mathematical construction of projections : cylindrical equal area, Mercator's and Gall's stereographic conical (with one standard parallel , two standard parallels , Bonne's, and polyconic .

### Section-B

Mathematical construction of projections: Zenithal (equidistance – polar and equatorial case , equal area-polar and equatorial case , Gnomonic-polar and equatorial case, stereographic – polar and equatorial case and orthographic- polar and equatorial case )convection projections:-sinusoidal and mollweide.

### Section-C

chain and Tape surveying, method of chaining on sloping ground and chaining obstruction.

### Books Recommended:-

चौहान , पी.आर. 2005: प्रयोगात्मक भूगोल। वसुन्धरा प्रकाशन, गोरखपुर।

Dickinson , G.C.1973: Statistical mapping and statistics .London.

Khullar ,S.R. 2000: Essentials of practical geography. New Academic publishing Co.,Jalandhar.

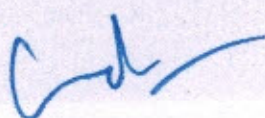
Robinson ,A. H.et al. 2004: Elements of cartography. John Wiley & Sons ,Inc., New York.

Rampal k.k.1993:Mapping and compilation : Method and Techniques. concept publishing company , New Delhi .


शर्मा, जे.पी. 2010-11: प्रयोगात्मक भूगोल की रूपरेखा । रस्तोरी पब्लिकेशन, मेरठ।

Singh,R.L. and Singh , R.P.B. 1991 : Elements of practical geography. Kalyani publishers, New Delhi.

तिवारी , आर.सी. एवं सुधाकर, त्रिपाठी 2009 : प्रयोगात्मक भूगोल । प्रयाग पुस्तक भवन, इलाहाबाद।

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## Paper Code : Geo 105: Man and Natural Environment

### Section-A

Definition and scope of environmental geography, its relation with other subjects, elements of the environment, man and environmental relationships: environmental determinism, possibilism and neo determinism, biosphere and its components, concept of ecology and ecological succession, types of ecosystems, energy flow in the ecosystem, soil system, geobiochemical cycles, major biomes of the world.

### Section-B

Environmental degradation and natural disasters, environmental crises: ozone depletion, green house gas effects, El-Nino, global warming and climate change, water scarcity, acid rain, sea level change, desertification, environmental pollutions: water, air, soil, noise and radioactive.

### Section-C

Environmental quality, sustainable development, environmental management, soil and forest resources management, water management, wildlife conservation, biodiversity and its conservation, environmental awareness and education, international efforts of environmental conservation.

### Books Recommended :-

- Agarwal, A. and Narain, S. 1977: Dying Wisdom: Rise, Fall and Potential of India's Traditional Water Harvesting System. Centre for Science and Environment, New Delhi.
- Economic and social commission for Asia and the Pacific United Nations 1989: Guidelines for the preparation of National Master Water Plans.
- Govt. of India, 1980: Ministry of Energy and Irrigation. Rashtriya Barh Ayog (Report-National Commission of Floods. Vol. I & II, New Delhi).
- Govt. of India, 1972: Ministry of Agriculture Report of the Irrigation Commission. Vol I & IV, New Delhi).
- गुर्जर, आर.के. एवं जट, बी.सी. 2001: पर्यावरण भूगोल। पंचशील प्रकाशक, जयपुर।
- Gulhati, N.D. 1972: Development of Inter-State Rivers: Law and Practice in India. Allied Pub., Bombay.
- International Water Resource Association and Central Board of Irrigation & Power, Water of Human Needs, 1975: Vols. I to V Proceedings of the Second World Congress on Water Resources, 12-16 December, New Delhi.
- Jones, J.A. 1997: Global Hydrology: Processes, Resources and Environmental Management. Longman.
- Kates, R.W. and Burton, I. (ed.) 1980: Geography, Resource and Environment Management, Ottawa.
- Krutilla, John V. and Eckstein, O. 1958: Multiple Purpose River Development: Studies in Applied Economic Analysis. John Hopkin's Press, Boston.
- Law, B.C. (ed.) 1968: Mountains and Rivers of India IGU. National Committee for Geography. Calcutta.
- Matter, J.R., 1984: Water Resources Distribution, Use and Management. John Wiley, Marylane.
- Michael, A.M. 1978: Irrigation: Theory and Practices. Vikas Publishing House pvt., New Delhi.
- Newson, M. 1992: Land, Water and Development River Basin systems and their Sustainable Management. Routledge, London.
- Pareira, H.D. 1973: Landuse and Water Resources. Cambridge University Press, Cambridge.

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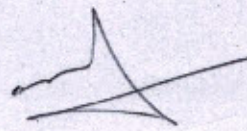
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- Rao, K.L. 1979: India's Water Wealth. Orient Longman, New Delhi.
- सिंह, जगदीश 2003: पर्यावरण एवं संविकास। इन्दोय प्रकाशन, गोरखपुर।
- शर्मा, पी.डी. 2009: पारिस्थितिकी एवं पर्यावरण। रस्तोगी प्रब्लिकेशन, मेरठ।
- Singh, R.A. and Singh, S.R. 1979: Water Management: Principles and Practices. Tara Publication, Varanasi.
- Singh, Savindra 2006: Environmental Geography. Prayag Pustak Bhawan, Allahabad.
- Smith, K. 1972: Water in Britain. A Study in Applied Hydrology and Resource Geography. McMillan, London.
- श्रीवास्तव, पी.के. एवं सन, पी.पी. 2002: पर्यावरण और पारिस्थितिकी। प्रसून्यय प्रकाशन, गोरखपुर।
- Tideman, E.M. 1996: Watershed Management. Guidelines for Indian Conditions, Omega, New Delhi.
- Tebbutt, T.H.Y. (ed.) 1985: Advances in Water Engineering. Elsevier Applied Science Pub., London.
- Todd, D.K. 1959: Ground Water Hydrology. John Wiley, New York.
- U.S.D.A. 1955: The Year Book of Agriculture: Water. Oxford and L.B.H. Publishing Co., New Delhi.
- Verghese, B.G. 1990: Water of Hope: Integrated Water Resource Development and Regional Co-operation within the Himalayan-Ganga. Brahmaputra-Darak Basin, Oxford IBH, New Delhi.
- White, G.F.L. 1977: Environmental Effects of Complex River Development. Westriver Press, Boulder, Colorado.

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## Paper Code : Geo 106: Cultural Geography

### Section-A

Definition, nature and scope of cultural geography, the evolutionary approaches and conceptual framework, evolution of man and human society from Palaeolithic to Pleistocene period, rise and dominance of *homo-sapiens* and their spatial distribution over the continents, distribution and characteristics of primary races of the world, zone and state theory.

### Section-B

Beginning of plant domestication, animal domestication and their regions, evolution of civilization: Mesopotamian, Nile, Indus and Hwang Ho Valley with respect to racial, Ethnic, religious, linguistic, demographic and organizational characteristics. School of cultural determinism, cultural adaptation, assimilation, integration diffusion and Environmental perception. Major cultural hearths, realms and regions of the world, basic similarities and differences.

### Section-C

Major linguistic families and their distribution in the world, bases of cultural diversity: race, religion, language and nationalism, culture and environment, human settlements-origin, types, pattern and distribution, westernization, sanskritization and cultural urbanization.

### Books Recommended :-

- Anderson, J. 2009: Understanding Cultural Geography-Places and traces. Routledge, USA.  
Anderson, K., Domosh, M., Pile, S. and Thrift, N. (eds.) 2003: Handbook of Cultural Geography. Sage Publications, London.  
Ahmad, Aijazuddin 1999: Social Geography. Rawat Publication, New Delhi.  
Crang, Mike 1999: Cultural Geography. Routledge, London.  
Chapman, K. 1979: People, Pattern and Process-An Introduction to Human Geography. Edward Arnold Ltd., London.  
Dreze Jean, Sen, Amartya 1996: Economic Development and Social Opportunity. Oxford University press, New Delhi.  
Dubey, S.C. 199: Indian Society. National Book Trust, New Delhi.  
Haq, Mahbubul: Reflection on Human Development. Oxford University Press. New Delhi.  
Mitchell, D. 2000: Cultural Geography: A Critical Introduction. Blackwell Publishers, Inc. USA.  
Norton, W. 2006: Cultural Geography. Environments. Landscapes. Identities. Inequalities. Oxford University Press, Toronto. 2<sup>nd</sup> Edition.  
प्रसाद, गायत्री 1991: सांस्कृतिक भूगोल। शारदा पुस्तक भण्डार, इलाहाबाद।  
Robertson, Iain, and Penny Richards 2003: Introduction In Studying cultural landscapes, ed. Iain Robertson and Richards, 1-18.  
Rubenstein, J.M. and Becon, J.M. 1990: Cultural Geography, John Wiley and Sons Inc., New York.  
रानी, सुवीरदीन 2001: सांस्कृतिक भूगोल। राजस्थान हिन्दी ग्रन्थ अकादमी, जयपुर।  
Scott, A. J. 1997: The Cultural Economy of Cities. International Journal of Urban and Regional Research, 21(2), 323-339.  
Saberwal, Vasant K. 1996: Pastoral Politics: Gaddi grazing, degradation, and biodiversity conservation in Himachal Pradesh, India. Conservation Biology 10, no. 3: 741-749.  
Sen, Amartya and Dreze Jean 1996: Indian Development Selected Regional Perspectives. Oxford University Press.  
Sopher, D. 1980: An Exploration of India: Geographical Perspectives on Society and Culture. Cornell University Press, Ithaca, New York.  
Smith, D.M. 1977: Human Geography: A Welfare Approach. Edward Arnold Publication, London.  
Spencer, J.E. and Thomas, W.L. 1969: Cultural Geography. John Wiley and Sons inc., New York.  
Subb Rao. Personality of India 1958: Pre and Proto Historic Foundation of India and Pakistan. M.S. University, Baroda, Vadodara.  
Wagner, P.L. & Mikesell, H.W. (eds.) Readings in Cultural Geography.  
Millerjee. A.B. and Aijazuddin, A. 1985: India-Culture, Society and Economy. Inter India publications, New Delhi.  
Broke, J.C. and Webb, J.W. 1978: A Geography of Mankind, McGraw Hill, New York.

## Paper Code : Geo 107: Population Geography

### Section-A

Population Geography: definition, nature and scope and interdisciplinary study, theories of population growth – pre-Malthusian views, Malthus' theory, Marxist theory, Optimum population theory, demographic transition model, world population distribution, growth trends and determinants.

### Section-B

Migration: history, theories, trends and patterns of International and Internal migration, population dynamics: fertility and mortality- measurement, determinants and distribution, world population composition and characteristics, world population urbanization, trend pattern and challenges.

### Section-C

India- population characteristics and relationship with development; population control movement and policies; urbanization and population explosion; post independence development-reproductive and child health programme, contemporary issues- ageing of population; declining sex ratio; hiv/aids.

### Books Recommended :-

- Bhende, Asha, A. and Kanitkar, 2002: Principles of Population Studies. 14<sup>th</sup> Edition, Himalaya Publishing House, Mumbai.
- Chandna, R.C. 2013: Population Geography. Kalyani Publishers, Delhi.
- Chandna, R.C. 2006: Jansankhya Bhugol. Kalyani Publishers, Delhi.
- Gamler, J.B. 1978: Geography of Population, Longman, U.K.
- Hassan, M.I. 2005: Population Geography. Rawat Publication, Jaipur.
- Kundu, A. Lopamudra, R.S. 2012: Migration and Exclusionary Urbanisation in India. Economic & Political Weekly, XLVII (26/27): 219-227.
- Kundu, A. 2006: Trends & patterns of urbanization and their economic implications. India Publications, London.
- Newbold, K.B. 2010: Population Geography: Tools and Issues. Rowman & Littlefield Corporation, New Delhi.
- Premi, M.K. 1991: India's Population Heading Towards a Billion. B.R. Publishing Corporation, New Delhi.
- Rural Urban Dynamics and the Millennium Development Goals 2013: Global Monitoring Report.
- Woods, R. 1997: Theoretical Population Geography. Longman, U.K.
- Weeks, J.R. 1988: Population: An Introduction to Concepts and Issues. Springer, Wadsworth.
- [www.un.org/esa/population/publications/worldageing19502050/](http://www.un.org/esa/population/publications/worldageing19502050/)
- [www.who.int/ageing/en/](http://www.who.int/ageing/en/)
- [India.unfpa.org/drive/NationalPopulation-Policy2000.pdf](http://India.unfpa.org/drive/NationalPopulation-Policy2000.pdf)
- UNAIDS Report on Global AIDS Epidemic, 2010

अकादमिक प्रभारी

## Paper Code: Geo: 108: Quantitative Techniques in Geography

### Section –A

Measures of central tendency, mean, mode, Quartiles, Median, Measures of dispersion, Range deviation, mean – deviation, standard deviation, Lorenz curve, measures of skewness, correlation Karl Pearson method and Spearman's, Rank correlation

### Section –B

Regression method of fitting a regression line – construction of regression line, interpolation and extrapolation probability, Theoretical frequency distribution. Sampling Theory and Sampling Distribution.

### Section –C

Statistical inference estimation and Hypothesis Testing, chi-square test, test of significance, large sample test. Small sample test- student's t- test, F-test. Analysis of variance.

### Books Recommended:-

- Gupta, S.P. 1979: Statistical Methods. Sultan Chand & Sons, New Delhi
- Mahmood, A. 1998: Statistical Methods in Geographical Studies. Rajesh Publication, New Delhi.
- Nagar, K.N. 1992: Sankhiki ke Mool Tatva. Meenakshi Prakashan, Meerut.
- Umwinn, D. 1981: Introductory spatial Analysis. Methuen, London.
- Geogory, S. 1978: Statistical Methods and Geographer. Longman, London.
- Hammond R. and McCullagh, P.S. 1974: Quantitative techniques in Geography: An Introduction. Clearendan Press, Oxford.
- John, P. Cole and Cuchlanle, A.M. King 1968: Quantitative Geography, John Willy, London.
- Johnston, R.J. 1973: Multivariate Statistical Analysis in geography. Longman London.
- Kautsoniannis 1973: Theory of Econometrics. Mcmillan, London.
- Maurice Yeats 1974: An Introduction to quantitive Analysis in Human Geography. McGraw Hill, New York.
- Peter Haggett, Andrew D. Cliff & Allan Frey 1977: Location Methods. Vol. I and II, Edward Arnold, London.

अकादमिक प्रभारी

## Paper Code : Geo 109: Geography of Rural Development

### Section-A

Geography and rural development; agriculture and rural development, rural land use; agriculture pastoral, forestry and land use competition. Landuse and landscape. Approaches to rural development, growth centre approach Infrastructure reformist. Rural settlement, housing, population and employment rural transport, service provision, derivation, recreation; health and nutrition.

### Section-B

Rural planning and land management; resource development and integrated rural development: crop and soil management live stock range and management; water management, ecological management.

### Section-C

Rural development in Rajasthan; rural development schemes-irrigation and land development schemes, drought prone areas schemes; desert development programme; integrated rural development in Rajasthan, MINREGA and tribal areas development; wasteland development.

### Books Recommended :-

- Glig, A.W. 1985: An Introduction to Rural Geography. Arnold London.  
Association of Country Councils 1979: Rural Deprivation, London ACC.  
Allan, J.A. 1980: Remote Sensing in Land Use Studies, Geography 65.  
Tweari, A.K. (ed.) 1988: Desertification: Monitoring and Control, Scientific Pubs, Jodhpur.  
Anderson, J.R.L.J. 1977: Hardardar-Agricultural Decision Analysis, Ames, Iowa State University Press.  
Andrease, B. 1981: Farming Development and Space-World Agricultural Geography, New York, Water Cryter.  
Morgan, W.B. and RJA 1971: Monon-Agricultural Geography. London Methuen.  
Padone, M. 1981: Rural Geography London, Parpur Clark, (ed) and Row 1984-Register of Research in Rural Geography Leicester: Rural Geography Study Group.  
Bowler, I.R. 1948: Agricultural Geography-Progress in Human Geography-B. Newbury, Pa. 1980: Geography of Agriculture-Plymouth Macodonak and Evans.  
Grigg, D.B. 1974: The Agricultural Systems of the World, Cambridge University Press.  
Grigg, D.B. 1984: An Introduction to Agricultural Geography, London Hutchinson.  
Jones, A. 1975: Rural Housing. The Agricultural Tied College, London Bell.  
Lassey, W.R. 1977: Planning in Rural Environment, New York, McGraw Hill.  
Lavery, P. (ed.) 1974: Recreational Geography, Newton Abbot; David and Charles.  
Leasdale, R. 1981: Settlement systems in sparsely populated regions & Homes (ed.) and Oxford, Pergamon.  
Menab, A. 1984: Integrated Rural Development, Gloucester Gloucester College of Arts.

Paper Code: Geo 110: Advanced Geography of Monsoon Asia

Section –A

Unity in Diversity in monsoon Asia , importance of location , physiographic , drainage basins , climate regions , nature vegetation , mineral wealth , population and its characteristics , importance of Monsoon land with respect of food stuffs and raw materials , natural rubber land with respect to good stuffs and raw materials , natural rubber and its world trade.

Section –B

Singapore- problems of industrial expansion , port development , human resource, Philippines – population and food problem and development Programmes. Thailand- Problem of Urbanization and regional division and development programmes. Indonesia – population densities and its trends, Types of Agriculture, Burma – regional divisions, agricultural, forest and mineral resource , Hong Kong – urban growth , changing trade pattern, changing land use pattern , Korea – agricultural development .

Section –C

China state farms and people communes , population and food supply industrialization, changing pattern of industrial complex , Red Basin , the Hwango Ho , Yagize Kiang and Sikiang Basins , Japan – Coal resources , water power , conservation of forest , fishing industry , motor vehicle steel and industries , industrial belts .

Books Recommended:-

Hussain, M. 2004: World Geography . Rawat Publication, Jaipur.

Johnson, D.L. et al 2012 : World Regional Geography: A Development Approach. PHI Learning Pvt. Ltd., New Delhi.

ममोरिया एवं अग्रवाल 2012: एशिया का भूगोल। साहित्य भवन, आगरा।

राव, बी.पी. एवं सतपथी, डी.पी. 2002: एशिया की भौगोलिक समीक्षा। वसुन्धरा प्रकाशन, गोरखपुर।

Shafi, M. 2000: Agricultural Geography of Asia. Macmillan, Delhi.

सक्सेना, एच.एम. 2010-11: विश्व का प्रादेशिक भूगोल। रस्तोगी पब्लिकेशन्स, मेरठ।

Tikkha, R.N. 1997: World Regional Geography. New Academic Publishing Company, Jalandhar.

Wadia, D.N.1919: Geology of India. Longman, London.

## M.A./M.Sc. GEOGRAPHY

### (Semester Scheme)

#### Scheme of Examination for II Semester

##### Course and Internal Assessment:-

- ❖ The student will require to earn Minimum 120 credits out of total 144 credits, in four semesters, for PG degree.
- ❖ Each student has to earn minimum 30 credits per semester (i.e. 120 credits in four semester for PG degree).
- ❖ Each semester of PG courses shall have credits. There will be three core papers and two elective papers (5 credits each) and one core laboratory work (6 credits each).
- ❖ Core Papers (Theory and Practical) are compulsory papers for the students of M.A. / M.Sc. (Geography).
- ❖ The Internal Assessment component comprises of assessment of student's performance on the basis of factors like Attendance, Class Room Participation, Quiz, Home Assignment etc.

##### Examination Pattern:-

- ❖ Each theory paper CCC and ECC shall carry 100 marks.
- ❖ The CCC and ECC will be of 3(Three) hrs duration for each theory paper and 4 hrs duration for each practical paper.

##### Theory Questions will be in Two Parts

- ❖ Part A of theory Paper shall contain 10 (ten) Short Answered Questions, covering entire Syllabus and each question will carry 2(two) marks i.e. part A will be of total 20 marks.  
Part B of the Question paper will consist of six (06) questions (two questions from each section). Student will have to attempt four (04) questions in all selecting at least one question from each section. Each question will carry 20 marks i.e. total of 80 marks
- ❖ Each Practical CCC and ECC will be of four hours duration and involve written test on Lab work (04 questions) 60 Marks and Record work and Viva – voce 40 Marks (30+10)

The details of the courses with code, title and the credits assigned are given in the table (appended).

##### Course Category:-

CCC: Compulsory Core Course

ECC: Elective Core Course

## M.A./M.Sc. GEOGRAPHY

### Second Semester:-

Sr. No.	Sub. Code	Course Title	Course category	Credit	Hours Per Week
1.	Geo 201	Modern and contemporary Geographical Thought (19 <sup>th</sup> Century onwards)	CCC	05	04
2.	Geo 202	Climatology	CCC	05	04
3.	Geo 203	Principles and Theory of Economic Geography	CCC	05	04
4.	Geo 204	Practical	CCC	06	07
<b>Elective any Two Papers From The Following :-</b>					
5.	Geo 205	Geography of Rural Settlement	ECC	05	04
6.	Geo 206	Bio Geography	ECC	05	04
7.	Geo 207	Resources Geography	ECC	05	04
8.	Geo 208	Geography of Tourism and Recreation	ECC	05	04
9.	Geo 209	Geography of Tribes and Special Reference to Rajasthan	ECC	05	04
10.	Geo 210	Medical geography	ECC	05	04

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## II SEMESTER

Paper code: Geo 201: Modern and Contemporary Geographical Thought  
(19<sup>th</sup> century onwards)

### Section A

Definition, scope, purpose and philosophy of geography, themes and basic concepts in geography; impact of Darwinism on Geographical thoughts, Foundations of modern geography: German school (Humboldt, Ritter, Ratzel, Richthofen, Hettner, Schluter), French school (Blache, Brunhes) British school (Mackinder) and Russian scholars during the 19<sup>th</sup> century, focus on geography as a science of chorology and landscape morphology.

### Section B

Rise of Anglo American School of geography: (Semple and Hartshorne) Implications of geography as spatial science, relationship between geography, economics and planning (regional science) paradigms and revolutions: quantitative revolution, behaviouralism, radical geography, approaches of integrated geography and modern synthesis.

### Section C

Philosophical pluralism: empiricism, positivism, humanistic geography (idealism, phenomenologism and existentialism) and structuralism, post-modernism and various paradigms/ schools of geographical thought during post-modern period, dualism in geography: physical and human geography, systematic and regional geography environmentalism and possibilism, qualitative and quantitative, Idiographic and nomothetic, Indian geography: development, emerging trends and professional challenges.

### Books Recommended :-

- Dear, M.J. and Flusty, S. (ed.) 2002: The spaces of Post modernity: Readings in Human Geography. Blackwell Publishers Ltd. Oxford.
- Dikshit, R. D. 2004: Geographical Thought. A Critical History of Ideas. Prentice-Hall of India Private Limited, New Delhi.
- Doi, R. D. 2002: Geographic Thought: A Spectrum of Compilation to Coherence. University Book House (Pvt.) Ltd., Jaipur.
- Dikshit, R. D. 1994 (ed.): The Art and Science of Geography - Integrated Readings. Prentice-Hall of India Private Limited, New Delhi.
- Haggett, P. 2001: Geography: A Global Synthesis. Prentice-Hall Pearson Educational, New York.
- Hartshorne, R. 1987: Perspective on the Nature of Geography. Scientific Publishers, Jodhpur (Copyright 1959 by the Association of American Geographers).
- Holt-Jensen, A. 2009: Geography: History and Concepts - A Student's Guide, SAGE, Los Angeles, London.
- Haggett, P. 1983: Geography: A Modern Synthesis. Harper and Row, New York.
- Harvey, D. 1969: Explanation in Geography. Arnold, London.
- जाट, बी.सी. 2013: भौगोलिक चिन्तन का इतिहास। महिष एण्ड कंपनी, जयपुर।
- जेन, एस.एम. 2005: भौगोलिक चिन्तन एवं विधि संज्ञा। साहित्य भवन परिक्षणेशन्स, आगरा।
- Johnston, R. J. 1983: Philosophy and Human Geography. Edward Arnold (Publishers) Ltd, London.
- Johnston, R. J. and Sidway, J. D. 2004: Geography and Geographers. Arnold, London.
- Johnston, R., Gregory D, Pratt G, Watts M. and Whatmore S. (2003): The Dictionary of Human Geography. Blackwell Publishers, Oxford.
- Johnston, R.J. 1985: The Future of Geography. Methuen and Company Ltd., New York.
- Kapoor, A 2001: Voice of Concern. The Concept Publishing Company, New Delhi.
- Minca, C. 2001 (ed): Postmodern Geography. Blackwell Publishers Ltd, Oxford.
- नीर्य, एस.जी. 2007: भौगोलिक चिन्तन का इतिहास। प्रयाग पुस्तक भवन, इलाहाबाद।
- Peet, R. 2003: Radical Geography, Rawat Publishers, Jaipur.
- Peet, R. 1998: Modern Geographical Thought. Blackwell Publishers Ltd, Oxford.
- Soja, E. (1989): Post-modern Geographies. Verso Press, London. Reprinted 1997: Rawat Publications, Jaipur and New Delhi.
- Taylor, G 1960: Geography in the Twentieth Century. Methuen & Co. Ltd. London.

## PAPER CODE: GEO 202: Climatology

### Section-A

Nature and scope of climatology and its relationship with meteorology. The atmosphere: structure and composition, isolation, heat-balance of the earth. Distribution of temperature: Temporal, vertical and horizontal, green house effect.

### Section-B

Atmospheric Equilibrium : stability and instability , potential temperature and evapo-transpiration. Distribution of atmospheric pressure and winds : jet streams-their origin , types and distribution , monsoon winds .

Climatic phenomena: air masses and fronts , origin, growth ,classification. Frontogenesis , types and weather associated with fronts. Cyclones and anticyclones , global warming .

### Section-C

Climatic classifications :Koppen's Thornthwaites -A critical appraisal of each classification, climates of the world: Tropical, Temperate Desert . Interpretation and generation of climatic information , soils ,agricultural activities.

Books Recommended:-

1. Barry & Perry, synoptic climatology.
2. Blair, T.A. , climatology- General and regional.
3. Chouly, R.J. & Barry, R.G., Atmospheric Weather and climate.
4. Donn, W.L., Meteorology.
5. Jackson ,I.J., climate, water and agriculture in tropics, 1977.
6. Kendrew, W.G., Climates of the continents.
7. Lal, D.S., climatology.
8. Mather, J.R., climatology: Fundamental and applications, 1974.
9. Patterson., introduction to meteorology .
- 10 .Rama sastery, A.A. Weather & Weather fore casting .
- 11 .Rummey, G., climatology and the world's climate.
- 12 .Stringer., techniques in Climatology.
- 13 .Stringer., Techniques in Climatology.
- 14 Trewartha ,G.T., Introduction to climate.

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अकादमिक प्रभारी

Paper code: Geo 203: Principles and Theory of Economic Geography

Section A

Simple model of economy, environmental relations of the economy, spatial structure of economy, geographical basis of economic activities, evolution of world economic system.

Section B

Manufacturing: factors of production, theories of plant location: Weber's Least cost theory, Losch's economics of location, Isard's space economy, Smith's spatial margins, Weber's uncertainty effect, Industries-Iron & steel, aluminium, paper and pulp, cotton textile, chemical industries-fertilizer, spatial variation in transport costs: location of transport routes and structure of transport costs.

Section C

Spatial organisation of land use: laws of return, concept of rent, Vonthunen's general theory of land use, dynamic agricultural location theory, Thunian location theory in the late 20<sup>th</sup> century world, classical central place theory: range of good, threshold, central place system and hierarchy, Christaller's hexagonal trade areas, loss and uniform plain, modification of

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## Books Recommended

- Alexander, J.W. 1988: Economic Geography. Prentice Hall, India, New Delhi.  
Berry, B.J.L. et al 1976: Geography of Economic System. Prentice hall, Englewood, Cliff.  
गौरव, अरुण: आर्थिक भूगोल। रस्तोगी प्रकाशन, गैरठ।  
Guha and Chatterjee 1989: A New Approach to Economic Geography. New York: John Wiley and Sons, Inc.  
Huntington, Ellsworth 1940: Principles of Economic Geography. New York: John Wiley and Sons, Inc.  
Hartshorn, T.A. and Alexander, J.W. 2000: Economic Geography. Prentice Hall, New Delhi.  
Hodder B. W. and Lee, R. 1974: Economic Geography. Methuen, London.  
हारुण, एम. 2008: संसाधन भूगोल। यमुन्या प्रकाशन, गोरखपुर।  
Janaki, V.A. 1985: Economic Geography. Concept Publishing Co., New Delhi  
जाट, वी.सी. 2014: आर्थिक भूगोल। पंचशील प्रकाशन, जयपुर।  
कारकीनाथ सिंह, जगदीश सिंह: आर्थिक भूगोल के मूल सिद्धांत। यमुन्या, गोरखपुर।  
Leong, G.C. and Morgan, G.C. 1982: Human and Economic Geography. Oxford University Press, London.  
Lloyd, P.E. and Dicken, P. 1977: Location in Space: A Theoretical Approach to Economic Geography. Harper & Row, Publishers, London.  
Prasad, Rama 1992: Impact of Consultation on Landuse. Rupa Publisher, Jaipur.  
प्रसाद, रामा 2007: कृषि पारिस्थितिकी एवं नियोजन। राधा प्रकाशन, नई दिल्ली।  
प्रसाद, रामा एवं यादव, सरवीर 2007: कृषि पारिस्थितिकी एवं नियोजन। राधा प्रकाशन, नई दिल्ली।  
Ramesh, A. 1984: Contributions to Indian Geography. Volume V, Resource Geography, Heritage Publishers, New Delhi.  
श्रीवास्तव, वी.के. एवं राय, वी.पी. 2002: आर्थिक भूगोल। यमुन्या प्रकाशन।  
Siddhartha, K. 1999: Economic Geography. Kishalaya Publication Pvt. Ltd., Patna.  
Shah, M.S. and Shah, Savita, 2011: Resource Geography. Gautam Book Company, Jaipur.  
Wheeler, J.O. et al 1993: Economic Geography. John Wiley, New York.  
Zimmetian, E.W. 1951: World Resources and Industries. Harper & Co. New York.

## PAPER CODE: GEO 204 : PRACTICAL

Minimum Marks:36	Bifurcation of Marks	Max. Marks:100
Written Test on Lab .Work( 4 Questions)	40	4 Hours
Record Work & Viva-Voce	10+5	
Project Report & Viva-Voce	10+5	
Survey & Viva-Voce	10+5	
Internal Assessment	15	
Total	100	

N.B.: In written test there shall be 2 questions from each section. candidates have to attempt 4 questions selecting at least one question from each section .All question carry equal marks . Examination be conducted in batches of not more than 20 candidates in any case. 09 Hours for teaching practicals be provided for a batch of 20 students per week.

### SYLLABUS

#### Section-A

Preparation of frequency table , graphical representation of data : histogram, frequency polygon , frequency curve and cumulative frequency curve or ogive , finding skewness computation of mean , mediam and mode , dispersions : mean and standard deviation an computation of correlations: karl pearson's and Spearman's rank ,coefficient of variability theoretical basis of nearest neighbour analysis and exercises.

#### Section-B

Locational analysis urban centres , measurement of disparities ,using latest data base : state ,district ,tehsil and development block level, preparation of chcropleth, isopleths and isochrones map , population potential surface map , population pyramids map and cartograms.trilinear chart , circular graph , climatograph, annual water budget graphs(surplus and deficiency )

#### Section-C

Use of Prismatic compass ,methods of Prismatic compass surveying.

Project Report : A candidate is to prepare project report of a village area for one week away from the headquarter of the institution . The marking on the project report will be awarded by the external examiner in consultation with the internal examiner concerned. The project should be based on primary data obtained by the candidate .the data should be represented by suitable cartographic methods.

### Books Recommended:-

- Dickinson, G.C. 1973 : Statistical Mapping and mapping statistics London .  
Lawrence, G.R.P. 1971 : Cartographic methods. Methuen, London.  
Mahmood ,A.1998: Statistical methods in Geographical studies. Rajesh Publications , New Delhi.  
Robinson, A.H. 2004: element of cartography .john wiley & sons, Inc, New York.  
Rampal. K.K. 1993 mapping and compilation : method and techniques. Concept publishing Company, New Delhi.  
शर्मा,जे.पी. 2010-11: प्रयोगात्मक भूगोल की रूपरेखा। रस्तोगी पब्लिकेशन, मेरठ।  
Singh, R.L. and Singh RPB 1991:Element of practical geography. Kalyani Publishers, New Delhi.  
जाट , बी.सी. 2016: प्रयोगात्मक भूगोल , पंचशील प्रकाशन , जयपुर।

अकादमिक प्रभारी

## Paper Code : Geo 205: Geography of Rural Settlement

### Section A

Significance and scope of settlement geography; Development of settlement geography; Methodological advances in the study of settlement geography; Approaches to the study of settlements: Evolutionary, spatial, and ecological; Types of settlement: Clustered and dispersed.

### Section B

Rural Settlements: Definition and characteristics; Site and situation. The evolution of field boundaries and field patterns. Types and materials of farm fencing; Folk housing and folk architecture; Traditional building materials.

### Section C

Indian Village: Nature and characteristics; A model of Indian village by Spate; Study of rural settlements in India with special reference to their morphological characteristics; Approaches to the morphogenesis of Indian villages. Orientation and segregation of castes in villages; Dichotomy in built environment: Mohamud Habib and Budha Prakash Debate; Study of landscape as a text.

### Books Recommended :-

- Ahmad, E. 1979. Social and Geographical Aspects of Geography of Human Settlements. New Delhi: Classical Publications.
- Ambrose, P. 1970. Concepts in Geography; Settlement Patterns. London: Longmans. Census of India, 1961. House Types and Settlement Patterns of Villages in India. New Delhi.
- Chisholm, M. 1969. Rural Settlements and Land Use. London: Hutchinson.
- Christaller, C. W. 1966. Central Places in Southern Germany. Englewood Cliffs N. J: Prentice Hall.
- Clout, H. D. 1972. Rural Geography: Introductory Survey. Oxford: Pergamon.
- Cox, K. R. 1972. Man, Location and Behavior: An Introduction to Human Geography. New York: John Wiley and Sons.
- Duncan, J. S. 1990. The City as Text: The Politics of Landscape Interpretation in the Kaudya Kingdom. Cambridge: Cambridge University Press.
- Eidt, R. C., K. N. Singh, and R. P. B. Singh, 1977. Man, Culture and Settlement. Varanasi: Kalyani Publishers.
- Hudson, R. S. 1970. A Geography of Settlements, Estover, Plymouth: Macdonald and Evans.
- James, P. E. and C. F. Jones, 1954. American Geography: Inventory and Prospects. Syracuse: Syracuse University Press.
- John E. Bush. 1962. The Morphology of Indian Cities. In Roy Turner (Ed.) India's Urban Future. Bombay: Oxford University Press.
- King, A. D. (ed.) 1980. Building and Society: Essays on the Social Development of the Built Environment. London: Routledge and Kegan Paul.
- Mayer, H. M. and C. F. Kohn. 1959. Readings in Urban Geography. Chicago: University of Chicago Press.

- Mukerji, A. B. 1976. Rural Settlements of the Chandigarh Siwalik Hills (India): A Morphogenetic Analysis. *Geografiska Annaler*, 58(2): 95-115.
- Mukerji, A. B. 1984. Progress in Rural Settlement Geography. In A Survey of Research in Geography 1972 - 75. New Delhi: Concept Publishing Company.
- Mukherji, R. K. 1968. Man and His Habitation: A Study in Social Ecology. Bombay: Popular Prakashan.
- Noble, W. A. 1969. Approaches toward an Understanding of Traditional South Asian Peasant Dwellings. *Professional Geographer*, 21(4): 264-272.
- Noble, A.G. 2007. Traditional buildings: A Global Survey of Structural Forms and Cultural Functions. London: I.B. Tauris
- Rapoport, A. 1965. House, Form and Culture, Englewood Cliff NJ: Prentice Hall.
- Ray, A. 1964. Villages, Towns and Secular Buildings in Ancient India. Calcutta: Firma K. L. Mukhopadhyaya.
- Singh, J. P. and Khan, M. 2002. Mystical Space, Cosmology and Landscape: Towards a Cultural Geography of India. New Delhi: Manak Publication.
- Singh, K. N. 1968. The Territorial Basis of Medieval Town and Village Settlement in Eastern Uttar Pradesh. *Annals of the Association of American Geographers*, 58(2):218-226.
- Singh, R. L. and K. N. Singh (eds.) 1975. Readings in Rural Settlement Geography. Varanasi: The National Geographical Society of India, B. H. U.
- Smailes, A. E. 1969. The Indian City: A Descriptive Model. *Geographische Zeitschrift*. September, pp181 - 182.
- Spate, O. H. K. 1952. The Indian Village. *Geography*, 37: 142-152.
- United Nations Centre for Human Settlements (HABITAT), 1966. An Urbanising World, Global Report on Human Settlements. Oxford: Oxford University Press.
- Verma, L. N. 2008. Adhiwas Bhugol (4<sup>th</sup> Edition). Jaipur: Rajasthan Hindi Granth Academy.
- Wagner, P. L. and Mikesell, M. W. (Eds.). 1962. Readings in Cultural Geography. Chicago: University of Chicago Press.

## Paper Code : Geo 206: Bio Geography

### Section A

Definition, scope and significance nature, approaches, history, recent trends and developments, plant and animal ecology forms and functions of eco system; ecosystem with special reference to mountain and desert factors influencing distribution of flora, taxonomical and ecological classification of plant, ecological succession, ecotone and community, patterns of distribution of world vegetation.

### Section B

Nature and classification of animals, dispersal and migration of animals: type and causes - case studies, geographical isolation, the zoo-geographical region, biogeography of the seas: island biogeography.

### Section C

Conservation and management of forest and wild life with reference to India, process of desertification, its consequences and management principals, projecting into the future: climate change: biogeographical consequences of global change: changing communities and biomes, effect of climate change on biological diversity, environmental hazards and problems of pollutions.

### Books Recommended :

- Anjunevulu, Y. 2002: Environmental Impact Assessment Methodologies. B.S. Publications, Hyderabad.
- Anjunevulu, Y. 2004: Introduction to Environmental Science. B.S. Publications, Hyderabad
- Bealke, P. Caimon, T. and Davis, L. (eds.) 2004: At Risk: Natural Hazards Peoples Vulnerability and Disasters. Routledge, London.
- Clarke, J.I. Curson, P. Kayastha, S.L. and Nag, P. (eds.) 1991: Population and Disaster. Basil Blackwell, U.S.A.
- Cox, C.B. Moore, P.D. 2010: Biogeography- An Ecological and Evolutionary Approach. Johnwiley and Sous, U.S.A.
- Huggett, R.J. 1998: Fundamental of Biogeography. Routledge, London.
- Ladle, R.J. and Whittaker, R.J. 2011: Conservation Biology. Blackwell Publications Co., U.S.A.
- Mathur, H.S. 1988: Essentials of Biogeography. Pointer Publishers, Jaipur.
- Macdonald, Geen, 2002: Biogeography: Introduction to Space-Time and Life. John Wiley, New York.
- Odum, E.P. 1975: Ecology, Rowman and Littlefield. Lanhan U.S.A.
- Robinson, H. 1982: Biogeography. Else, Mc. Donald and Evans London.
- Singh, A.K., Kamra, V.K. and Singh, J. 1986: Forest Resource: Economy and Environment. Concept Publishing Company, New Delhi.
- सिंह, एच. 2013: जैव भूगोल। प्रथम पुस्तक भवन, इलाहाबाद।

अकादमिक प्रभारी

# Paper code: Geo 207: Resources Geography

## Section-A

Nature, scope and significance of resources geography, classification of resources: natural resources : distribution ,exploration ,uses and conservation of forest ,water ,soils, fisheries , mineral resources (coal petroleum ,natural gas and non convention energy resources).

## Section -B :

Human resource : population growth , distribution and density , causes of inequalities, population – resources relationship and problems, agricultural resources: fisheries and cereal crops, beverages, commercial crops, agriculture regions of the world.

## Section- C

Concepts of Resources utilization, their conservation, environmental and cultural constraints in resource utilization , water conservation and rain water harvesting , soil and forest resources conservation, land capability classes , resources regions of the world , resources regions of the India, sustainable development .

## Books Recommended:-

Alexander, E.W.1988: Economics geography. Prentice hall India ,new Delhi.

Bunting B.C.1987: The geography. Of soil. prentice hall, New York.

गुर्जर, आर.के. एवं जाट, बी.सी. 2013: संसाधन भूगोल । पंचशील प्रकाशन, जयपुर ।

कौशिक, एस.डी. 2010: संसाधन भूगोल । रस्तोगी पब्लिकेशन , मेरठ ।

माथूर, बी 1998: संसाधन भूगोल । रस्तोगी प्रकाशन , मेरठ ।

Mitchell, Bruce. 1979:geography and Resource Analysis. Longman , London .

Park ,C.C. 2001 : The environment – principles and applications. Routledge , London .

Robinson, G.W.1932 : Soils their origin , constitution and classification. London .

Shafi , M.2004:Agricultural geography . pearson India.



**Section A**

Leisure, recreation and tourism - definitions and relationships- Tourist Mobility and Gazes- Space and Place Context, Evolution of Tourism- historical origins- modernisation- mass tourism- Globalisation and Tourism- opportunities, risks and constraints, Contemporary world patterns- core regions in Global North and South, Tourism and Tourism Spaces- Approaches- areas of research- Role of tourism in development.

**Section B**

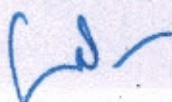
The nature of tourism production- Tourism capitalist relationships and regulation theory Dynamics of globalization, Organisation - Models of production- micro firms and MNCs- Spatial fixity and factors of, Supply- Infrastructure, services and marketing, Tourism labour process- flexibilisation- spatio-social context, Tourism consumption-motivational factors- commodification of tourists' experiences, typologies of tourists' consumptions- Spatial context.

**Section C**

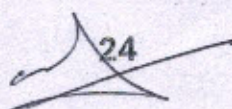
Impact of tourism- Changing perspective- Commodification of places- Environmental dimension, Economic impact-Employment, labour, Sectoral linkages and hierarchy, Social construction of tourism places- Commodification of culture- Stages; Structuring of tourists' gazes and place image- Tourists- community relationships, Tourism impact assessment, Tourism development in Rajasthan: Policy and perspective.

**Books Recommended**

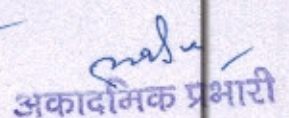
- Banerjee-Guha, S. (2003): Contemporary Tourism Policy and Coastal Districts of Maharashtra: A Critique, unpublished report, Equations. Bangalore, on project conducted at the Department of Geography, University of Mumbai.
- Bhardwaj, D. S. and Chaudhary, M. (1997): Contemporary issues in Tourism, Himalaya, Mumbai
- Bhatia, A.K. (1989): Tourism Development, Principles and Practices, Sterling, Bangalore.
- Bhatia, A.K. (1991): International Tourism: Fundamentals and Practices, Sterling, New Delhi.
- Chris Ryan. (1991): Recreational Tourism, a Social Science Perspective, Routledge, London.
- Cosgrove, I. And Jackson, R. (1972): The Geography of Recreation and Leisure, Hutchinson, London.
- Garg, N.K. (1996): Tourism and Economic Development. Avishkar, Jaipur.
- Hall, C.M. and Page, S. J. (1999): The Geography of Tourism and Recreation, Environment, Place and Space, Routledge, London.
- Hall, C.M. and Page, S.J. (2001): Tourism in South and South-east Asia: Issues and Cases, Butterworth, Heinemann, Oxford.
- Hunter, C. and Green, H. (1995): Tourism and the Environment, A Sustainable Relationship.
- Kaul, R.K. (1985): Dynamics of Tourism and Recreation, Inter India, New Delhi.
- Pearce, D. (1987): Tourism Today-- A Geographical Analysis, Longman Scientific and Technical, New York.
- Pearce, D. (1989): Tourist Development, Longman Scientific and Technical, New York.
- Robinson, H. (1976): Geography of Tourism, Macdonald and Evans, London.
- Shaw, G. and Williams, A.M. (1994): Critical Issues in Tourism, a Geographical Perspective, Blackwell, Oxford, U.K.
- Shaw, G. and Williams, A.M. (2004): Tourism and Tourism Spaces, Sage.
- Sinha, P.C. (1997): International Encyclopedia of Tourism Management, Vol. 1-12, Anmol, New Delhi.





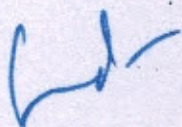


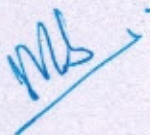


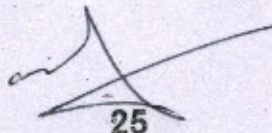
  
अकादमिक प्रभारी

**Books for further reading:**

- Baggio R. and Klobas J. (2011): Quantitative Methods in Tourism, A Handbook. Aspects of Tourism: Channel View Publications, UK, USA, Canada.
- Batra, G.S. and Donghal, R.C. (2002): Tourism promotion and Development, Deep and Deep, New Delhi
- Becken S. and Hay J., (2012): Climate Change, and Tourism, From Policy to Practice, Earthscan, Routledge, Tourism Environment and Development Series, London and New York.
- Chattopadhyay, K. (1995): Economic Impact of Tourism Development, Avishkar, Jaipur.
- Foster, D. (1986): Travel and Tourism Management, Macmillan, Hampshire.
- Fullagar S., Markwell K., Wilson E., (2010): Slow Tourism, Experiences and Mobilities, Aspects of Tourism. Channel View Publications, Bristol, Buffalo, Toronto.
- Holden A and Fennell D. (ed.) (2013): The Routledge Handbook of Tourism and the Environment, Routledge, Taylor and Francis Group, London and New York.
- Kaiser, C. Jr., Helber, L.E. (1977): Tourism Planning and Development, CBI Publishing Co. Inc. Boston.
- Kaur, J.(1985):Himalayan Pilgrimages and New Tourism, Himalayan Books, New
- Kumar, R.B. (1995): Coastal Tourism and Environment, Avishkar, Jaipur.
- Lavery, P. (1971): Recreational Geography, Douglas David and Charles Ltd., Vancouver.
- Mill R.C. and Morrison, A.M. (1985): The Tourism System: An introductory Text, Prentice Hall International Englewood Cliff, New Jersey.
- Modi, S. (2002): Tourism and Society, Rawat, Jaipur.
- Neumeyer, M.H. and Neumeyer, E.S. (1949): Leisure and Recreation, A. S. Barner and Company, New York.
- Newsome D and Dowling R. (ed.) (2010): Geotourism: The Tourism of Geology and Landscape, Goodfellow Publishers Ltd, Oxford.
- Singh, S.(1995): Profile of Indian Tourism, Avishkar, Jaipur
- Singh, S.N.(1986):Geography of Tourism and Recreation, Inter India, New Delhi
- Yadav, Hrishikesh, (ed.) (1995): Sangati Sahyadrichai, Sahyadri Prakashan, Mumbai.
- Yeoman I., et. al. (2012): 2050 - Tomorrow's Tourism, Aspects of Tourism, Channel View Publications, Bristol, Buffalo, Toronto.





  
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**Section A**

**Tribes and tribal communities- Perspectives in time and space: (A Historical Perspective)**

Race, Ethnicity and Tribes – Contemporary Global Distribution of Tribes, Differentials in tribal living – Location, environment, economy, society and culture of tribes, Social organisation and control.

**Section B**

**Tribes in Rajasthan**

Tribes of Rajasthan- Locational and environmental, – Demography of tribes : Major and minor areas of concentration – Characteristics and classification. Differentials in characteristics - Economic activities and associated status Occupational characteristics of tribals in Rajasthan – Social mobility – Case studies. Issues of integration and marginalization – Analysis of development projects and the placement or Displacement and resettlement of tribals.

**Section C**

**Tribals and mainstream development**

Study of scheduled and non scheduled tribes, Tribals in various sectors of economy and society, Tribal movements – Historical perspectives – Social, economic, political and ecological issues. Tribal Development Policies in India- Colonial and post- colonial policies: Nature, parameters and objectives - Impact of such policies on tribals- A Review.

**Books Recommended :-**

- Bhange, N.P.(1993): Tribal Commission and Committees in India, Himalaya Publishing House, Bombay.
- Boss, N.K.(1971): Tribal life in India, National Book Trust, New Delhi.
- Chkravarty, M, Mukherjee, D.(2009), Indian Tribes, Saraswat library, Calcutta.
- Chaudhury, B.(1982): Tribal Development in India: problems and Prospects,
- Chaudhary SN (ed) (2012), Tribal Health and Nutrition, Rawat Publication, Jaipur
- Pati, R.N. and Jena B (1989) Tribal Development in India, Ashish Publishing House, New Delhi.
- T. Prasad (1979): Tribal Geography. An Introductory Bibliography, Classical Publications, New Delhi.
- Ramaswami, VS (1988): Tribal Economy; Problems and Prospects, Chugh Publications, Allahabad.
- Singh, K.S.(1982): Tribal Movement in India, Manohar Publications, New Delhi.
- Singh, S.(1969): Tribal Situation in India, Indian Institute of Advanced Study, Simla
- Vivelo, F.R. (1978): Cultural Anthropology, McGraw Hill, New York.
- Waterlow, C. (1967): Tribe, State and Community, London
- Vyas, N.N. and Mann, R.S.(2008), Indian Tribes in Transition, Rawat Publications, Jaipur
- Vyas, N.N. and Mann, R.S.(2008), Indian Tribes of Northern Mato Grosso Brazil, Rawat Publications, Jaipur

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## Paper Code Geo 210: Medical Geography

### Section -A

Definition , nature , scope and contents , relation of medical geography with other allied discipline , concept of health and disease , major disease and their geomedical classification.

### Section -B

Geomedical data ; source, methods of representation , analysis limitations and problems; spatial and temporal variations in the physical , cultural and the biotic environment and its influence upon human health, nutritional levels in India , disease of under - nutrition and malnutrition.

### Section -C

Disease of civilization : cancer , blood vascular the smoking disease accidents, drug abuse and abdications , distribution of major disease in Rajasthan , community health : distribution of medical facilities and population , healthcare planning in urban and rural area. Survey of common epidemic and endemic diseases in small area on the basis of field study , standard of living : housing diet, clothing ,income and sanitation.

### Books Recommended:-

- Learmon, A.T.A. 1976: "So you want to be Medical Geographer? An open letter to students". In" Prakashan Rao, V.L.S. et al. (Eds.) . The Golden Jubilee Volume, Madras. The Indian Geographical Society.
- Learmonth, A.T.A. 1976 : "Modals and medical Geography "in Mishra V.C. (Ed) Essay in Applied geography, saugar , University of saugar.
- Lenian ,J. and Fletcher, W.W.(eds.)1976: Health and the environment , chapter 2, Glasgow, Blackie.
- May,J.M.1950 "Medical Geography : its methods an objectives ",geographical Reviews: vol. 40, pp. 10-40.
- May ,J.M.1961:"studies in disease Ecology ",New York Hafner.
- May ,J.M.1958: Ecology of human diseases", New York, American geographical society .
- Mc Glashan ,N.D.(Ed)1072:" Medical geography Techniques and Field Studies", London Methuen.
- Mishra R.p.1981: "The Medical geography of common diseases in Rajasthan", unpublished Ph.D. Thesis Jaipur university of Rajasthan.
- Mishra, R.P.1969:" The Medical Geography of India ", New Delhi National Book Trust.
- Park J.E. Park K. preventive and Sofial Medicine.
- Patwardhan, V.N.1961:"Notification of india ",Bombay. India journal of medical sciences.
- Prothero , B.N. 1965: Migrants and malaria London , Longmans
- Pyle, G.W.and Alan Dever, G.E., Health care Delivery: Spatial perspectives , New York, McGraw.
- Singh, Amar : 1978 "The Lower Chamabal Basin : A Study in Medical Geography", Unpublished Fh.D. Thesis, Gwalior , Jiwaji University .
- Stamp, L.D. 1964 : "Some Aspects of Medical geography", Oxford University press .
- Stamp L.D. 1964:" The geography of life and Death", London,Fontana.
- Stevenson-introduction of Food and Nutrition.
- Wilson and Evad- Principles of nutrition.

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अकादमिक प्रभारी

**M.A./M.Sc. GEOGRAPHY**  
**(Semester Scheme)**

**Scheme of Examination for III Semester**

**Course and Internal Assessment:-**

- ❖ The student will require to earn Minimum 120 credits out of total 144 credits, in four semesters, for PG degree.
- ❖ Each student has to earn minimum 30 credits per semester (i.e. 120 credits in four semester for PG degree).
- ❖ Each semester of PG courses shall have credits. There will be three core papers and two elective papers (5 credits each) and one core laboratory work (6 credits each).
- ❖ Core Papers (Theory and Practical) are compulsory papers for the students of M.A. / M.Sc. (Geography).
- ❖ The Internal Assessment component comprises of assessment of student's performance on the basis of factors like Attendance, Class Room Participation, Quiz, Home Assignment etc.

**Examination Pattern:-**

- ❖ Each theory paper CCC and ECC shall carry 100 marks.
- ❖ The CCC and ECC will be of 3(Three) hrs duration for each theory paper and 4 hrs duration for each practical paper.

**Theory Questions will be in Two Parts**

- ❖ Part A of theory Paper shall contain 10 (ten) Short Answered Questions, covering entire Syllabus and each question will carry 2(two) marks i.e. part A will be of total 20 marks.

Part B of the Question paper will consist of six (06) questions (two questions from each section). Student will have to attempt four (04) questions in all selecting at least one question from each section. Each question will carry 20 marks i.e. total of 80 marks

- ❖ Each Practical CCC and ECC will be of four hours duration and involve written test on Lab work (04 questions) 60 Marks and Record work and Viva – voce 40 Marks (30+10)

The details of the courses with code, title and the credits assigned are given in the table (appended).

Course Category:-

CCC: Compulsory Core Course

ECC: Elective Core Course

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अकादमिक प्रभारी

## M.A./M.Sc. GEOGRAPHY

### Third Semester:-

Sr. No.	Sub. Code	Course Title	Course category	Credit	Hours Per Week
1.	Geo 301	Advanced Geography of India	CCC	05	04
2.	Geo 302	Human Geography	CCC	05	04
3.	Geo 303	Oceanography	CCC	05	04
4.	Geo 304	Practical	CCC	06	07
<b>Elective any Two Papers From The Following :-</b>					
5.	Geo 305	Research Methodology	ECC	05	04
6.	Geo 306	Urban Geography	ECC	05	04
7.	Geo 307	Fundamental of Natural Hazard and Disaster Management	ECC	05	04
8.	Geo 308	Political Geography	ECC	*05	04
9.	Geo 309	Social Geography	ECC	05	04
10.	Geo 310	Computer Aided mapping and Thematic Atlas	ECC	05	04

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### III SEMESTER

Paper Code : Geo 301 : Advanced Geography of India

#### Section A

Geological structure and its relation with distribution of minerals; physiographic divisions; climate:- various seasons and weather associated with these seasons, mechanism of Indian monsoon, major climatic regions; soil:- characteristics, distribution and major soil regions; drainage system and watersheds.

#### Section B

Resource potential and evaluation, water resources & Multi-purpose Irrigational projects, vegetational resources, agriculture: typology, major crops, changing pattern of crops and green revolution, animal resources, mineral resources, human resources & population policies.

#### Section C

Resources development and utilization: power, industries and transport, river basins of India, riverine problems of sharing water and their planning, industrial regions and economic regions of India, regional problems.

#### Books Recommended :-

- Bansil, B.C. 1975: Agricultural Problems in India, Delhi.  
Deshpande, C.D. 1992: India-A Regional Interpretation: Northern Book Centre, New Delhi.  
Gopal Krishnan, R. 2001: Geography of India. Jawahar Publishers & Distributions, New Delhi.  
Govt. of India: National Atlas of India, NATMO Publication, Calcutta.  
Govt. of India 1965: The Gazetteer of India, Vol. I & II Publication Division, New Delhi.  
India 2004, Ministry of Information and Broad Casting. Govt. of India, New Delhi.  
Khullar, D.R. 2006: India a comprehensive Geography. Kalyani Publishers, New Delhi.  
Krishnan, D. 1971: The New Agricultural Strategy. Delhi.  
Kurdue, A. & Raza, Moonis: Indian Economy the Regional Dimension.  
महेशचन्द्र, सी. 1999: आधुनिक भारत का पृथक् मूलांक। साहित्य भवन परिसरकोरान्त, आगरा।  
Mahesh Chand and V.V. Puri, Regional Planning in India.  
Md. Noor., Perspectives in Agricultural Geography. New Delhi.  
Misra, R.P., Regional Planning: Concepts, Techniques and Policies.

अकादमिक प्रभारी

Paper Code: - GEO 302: Human Geography

Section-A

Nature, scope and significance of human geography; approaches to the study of human geography. Fundamental Theories, Facts of Human Geography (Brunhes and Huntington). Man – environment relationship : Environmental determinism, possibilism and Neo Determinism.

Section – B

Patterns of population : Distribution and Growth of population in developed and developing countries and their socio – economic implications . Human migration : cause and consequences.

Section-C

Major human race in the world : Distribution of races/ethnic groups. Major world religions. Human Adaptation to Different environment : some Typical Modes of life as Eskimos, Bushmen, Pygmies, nagas and Gonds.

Books Recommended :-

1. Perpillou, A.V., 1977 , Human geography , London.
2. Ambrose, P., 1969 , Analytical Human Geography .London.
3. Spencer, J.E. & Thomas , W.L., 1978 Introduction to cultural geography, New York.
4. De Blij, H.J., 1977 Human Geography, New York.
5. Rubenstein . J.M.& Bacon R.S., 1983, Introduction to human geography, New York.
6. Khan, J.H. Scio- Economic & Structural Analysis of internal migration , New Delhi. 2010.
7. Smith , D. M., 1977 , Human Geography a welfare Approach , London.
8. Taylor. G., Geography in Twentieth century.
9. Dicken, S.N. Introduction to human geography.
10. Jones, E., Human Geography.
11. Garnier, J.B., Geography of population.
12. Trewartha , G., Geography of population.
13. Enayat, A., Social and Geographical Aspects of Human Settlements.
14. Briggs , K., 1983, Human Geography : concepts and applications, London.
15. Husain, M., 2000, Human Geography, New Delhi.
16. Leong, G.C. & Morgan. Human and Economic Geography.

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Paper Code: GEO 303: Oceanography

Section-A

Oceanography – nature, scope and development, distribution of land and water, ocean bottom topography, bottom relief of Pacific, Atlantic and Indian Ocean.

Section – B

Characteristics of ocean water: temperature – distribution, salinity – composition, source and distribution, density of sea level. Movement of ocean water: currents – causes and character, currents of Atlantic, Indian and Pacific ocean, Waves, tides and theories of origin.

Section - C

Ocean deposits and coral reefs: sources, types and distribution of ocean deposits, coral reefs – formation, condition of growth, type and theories of origin.

Books Recommended:-

1. Davis, R.J.A. 1986, Oceanography – An Introduction of the marine Environment, Win C. Brown, Iowa.
2. King, C.A., Oceanography for Geographers, Edward Arnold Pub.
3. Murray, S.J., 1913, Ocean, A General account of the science of the sea, Thorton Butter Worth, London
4. Siddharth, K. 1999, Oceanography, A Brief introduction, Kisalaya Pub. Pvt. Ltd., New Delhi.
5. Singh, S. 2002, Physical Geography, Prayag Pub., Allahabad.
6. Stahler, A.N. Stahler A.M., 1997, Geography and man's Environment, John Wiley and sons, New York.
7. Thurnman, H.V., 1978 Introduction to Oceanography, Charles E. Merrill Pub. Co., London.
8. Weyl, P.K. 1970, Oceanography an Introduction of the Marine Environment, John Wiley and sons Ltd., London

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अकादमिक प्रभारी

Paper code : Geo 304 : Geography Practical

Minimum Marks : 36	Bifurcation of Marks	Max. Marks: 100
Written test on Lab work (4 Questions)	60	4 Hours
Record work & Viva – Voce	10+5	
Survey & Viva – Voce	10+5	
Internal Assessment	10	
Total	100 Marks	

N.B.: In written test there shall be 2 questions from each section. candidates have to attempt 4 questions selecting at least one question from each section .All question carry equal marks . Examination be conducted in batches of not more than 20 candidates in any case. 09 Hours for teaching practicals be provided for a batch of 20 students per week.

**SYLLABUS**

**Section-A**

Methods and techniques of representation of relief: methods and techniques of depicting relief profile , gradients and calculation of slope, Block Diagrams , field sketching hypsographic curve , altimetric frequency graphs.

**Section- B**

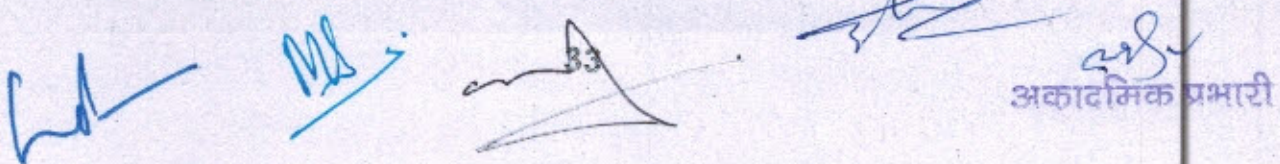
Interpretation of topographical maps: a brief history of topographical maps of the world with special reference to india and their interpretation, detailed Study of such topographical sheets which depict typical geomorphological and cultural landscapes .

**Section-C**

Use of dumpy level, Practical Contouring cross Sectioning , use and application of Abney level.

**Books Recommended:-**

- Robinson, A.H. 2004: element of cartography .john wiley & sons, Inc, New York.
- Singh, R.L. and Singh RPB 1991:Element of practical geography. Kalyani Publishers, New Delhi.
- Rampal, K.k 1993 : mapping and complication : Methods and techniques. Concept publishing company , New Delhi
- Monkhouse,F.J. and Wilkinson , H.R.1971: Maps and diagrams. Methuem, London.
- Sharma, J.P.2011: Pratical Geography . Rostogi publucation , Meerut.
- Tiwari, R.C.. 2009: Practical geography . Prage Pustak Bhawan , Allahabad.



अकादमिक प्रभारी

## Paper Code : Geo 305 : Research Methodology

### Section A

Research: meaning, objectives, significance, types of research, research approaches, problems of geographical research, relevant and applied research, hypothesis and its basic concepts, testing of hypothesis, models and paradigm, formulation of research proposal and research design, types of research projects and report writing.

### Section B

Sources of data, methods of data collection, processing, analysis and results, observation and interview questionnaire and field schedule, sampling theory, sample size, sampling techniques, selected techniques of spatial analysis, concentration and dispersion of economic activities, interaction theories, scaling techniques, measurements of disparities and inequalities, methods of delimitation of economic, industrial, agricultural and planning regions.

### Section C

Regional population analysis, population projections, network analysis, delimiting sphere of city influence, core and marginal area, morphometric analysis, drainage basin analysis and slope analysis, biogeochemical cycles, integrated area development planning, use of software for quantitative geographical analysis, introduction to remote sensing and geographical information system in land use analysis.

### Books Recommended :-

- आहुजा, राम 2010: सामाजिक अनुसंधान। रावरा प्रब्लिकेशन्स, नई दिल्ली।  
डी.डी. चौनियाल 2006: सुपर संवेदन एवं भौगोलिक सूचना प्रणाली। रावरा प्रसक भवन, जयपुर।  
Guthrie, G. 2010: Basic Research Methods—An Entry to Social Science Research. SAGE Publications, India Pvt Ltd., New Delhi.  
Gupta, S.P. 1979: Statistical Methods, Sultan Chand & Sons, New Delhi.  
Harvey, D. 1969: Explanation in Geography, Arnold Heinemann, London.  
Har Prasad 1992: Research Methods and Techniques In Geography. Rawat Publication, Jaipur.  
K.R. Sharma 2004: Research Methodology. National Publishing House, Jaipur.  
Kothari, C.R. 1990: Research Methodology—Methods and Techniques. Wishwa Prakeshan, New Delhi.  
Mishra, H.N. and Singh, V.P. 1998: Research Methodology in Geography. Rawat Publication, Jaipur.  
Mahmood, A. 1998: Statistical Methods in Geographical Studies. Rajesh Publication, New Delhi.  
Mishra, R.P. 1989: Research Methodology. Concept Publishing Company, New Delhi.  
Pal, S.K. 1998: Statistics for Geoscientists – Techniques and Applications. Concept Publishing Company, New Delhi.  
Sharma, P.R. and Yadav, R.S. 2011: Research Methodology: Concepts and Studies. R.R. Books, New Delhi.  
श्रीवास्तव एवं प्रसाद 2008: भूगोल की सांख्यिकी विधियाँ। वसुन्धरा प्रकाशन, गोरखपुर।  
वीरेन्द्र प्रकाश शर्मा 2001: रिसर्च मेथडोलोजी। पंचरील प्रकाशन, फिल्म कॉलोनी, सीड्रा रास्ता, जयपुर।

## Paper Code : Geo 306 : Urban Geography

### Section-A

Meaning, aims, importance and scope of urban geography, factors affecting recent trends the growth of town cities different historical periods, Neolithic period, greek and roman period. dark ages , medieval period renaissance period , industrial revolution and modern times chief characteristics of the towns , trends of urbanization in the world, definitions of urban centers , chief characteristics of modern town , city conurbation metropolian and megálopolis , spatial pattern and distribution of urban center origin and evolution of urban Settlement, types of cities-central Placed, urban transportation

### Section - B

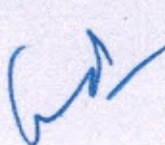
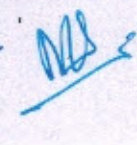
Functions and functional classification of towns, urban rank-size relationship, concept of urban economic function and its urban hierarchy based on functions law of promate city, urban morphology, functional structure of towns, characteristics of C.B.D., residential area, and other functional areas center place theory (christaller and losch) and modals of urban structure theory of urban structure (burgess , hoyt, harris & ullman) .

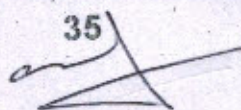
### Section -C

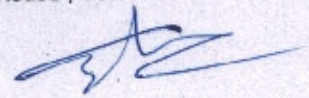
Centrifugal and centripetal forces in urban geography. Development of suburbs , rural urban fringe , satellite towns , Ring towns, sphere of urban influence (umland) and its delimitation control of urban problems : environmental, urban poverty , slums, transportation , housing , crime , principles of town planning, principles of regional planning.


### Books Recommended :-

- A.E. Smailes : The Geography of towns . Hutchinson , university Library , London.  
Abercrombie : Town and country - planning . Oxford university press , London.  
बंसल, एस.सी. 2010: नगरीय भूगोल, मीनाक्षी प्रकाशन, मेरठ ।  
Carter , Harold 1995: The study of urban geography Arnold (Publisher) Pvt. Ltd., London.  
Dickinson, R.E.: city Region and Regionalism. Routledge and Kegan Paul London .  
Herrold M. Mayer : Readings in urban geography , Central Book Depot, Allahabad.  
N.V. Sovani : Urbanization and urban India . Asia publishing House . Bombay.  
P.C. Malhotra : Survey of Bhopal City and Bairagarh (Asia publishing Bombay)  
R.L. Singh : Bangalore as Urban survey .National Geographical society of India , B.H.U., Varansi.  
Shah Manzoor Alam : Hyderabad and secuderabad , Twin City Studies in urban Geography. Allied published, Delhi.  
Singh R.L.: Banars A study in urban geography . student friends , Allahabad .  
Taylor G.: Urban geography . Muthuen and Co., London.  
V.K.R.V. Rao : Socio-Economic survey of Greater Delhi. Asia publishing Bombay.  
V.L.S. Prakas Rao : T Gowns of Mysore state . Statistical Publishing House , Calcutta.

35  




  
अकादमिक प्रमाणी

**Paper Code: Geo 307: Fundamentals of Natural Hazards and Disaster Management**

**Section-A**

Concept of Hazards, Risk, Vulnerability and Disaster. Types of Hazards : Natural, man-made. Natural Disasters : Floods, drought and desertification, earthquakes, landslides, avalanches, cyclones, forest fires.

**Section-B**

Regional Dimension of Hazard : Occurrence and trends with special reference to northwest India. Case Studies : Floods in Delhi, Major Fires in Kolkata, Earthquakes in Bhuj, Rail Accidents in India.

**Section-C**

Disaster Management : Concepts relating to the Pre-disaster phase, emergency phase, post-disaster phase. Disaster Management Mechanism in India : Agencies, Plans and Policies.

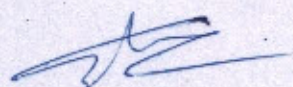
**Books Recommended :-**

- Allan, S., Adam, B. and Carter, C. (eds.) (2000), Environmental Risks and the Media, Routledge, London.
- Ambala-Bertrand, J.M. (1993), Political Economy of Large Natural Disasters : With Special Reference to Developing Countries, Clarendon Press, Oxford.
- Blaikie, P. and Others (1994), At Risk : Natural Hazards, People's Vulnerability and Disasters, Routledge, London.
- Burton, I., Kates, R.W. and White, G.F. (1993), Environment as Hazard, 2nd edition, Guilford Press, New York.
- Hewitt, K. (1997), Regions of Risk : A Geographical Introduction to Disasters, Longman, London.
- Kasperson, J.X., Kasperson, R.E. and Turner, B. L. (1995), Regions at Risk : Comparisons of Threatened Environments, United Nation University Press, Tokyo.
- Mitchell, J.K. (ed.), (1999), Crucibles of Hazard : Mega-Cities and Disasters in Transition, United Nations University Press, New York.
- Quarantelli, E.L. (ed.), (1998), What is a Disaster? Perspective on the Question, Routledge, London.
- Schneld, T. and Collins, L. (1998), Disaster Management and Preparedness, Lewis Publishers, Washington, D.C.
- Godschalk, D.R. et.al. (1999), Natural Hazard Mitigation: Recasting Disaster Policy and Planning, Island Press, Washington, D.C.
- Paraswamam, S. and Umikrishnan, P.V. (2000), India : Disaster Report, Oxford University Press, New Delhi.
- Kapur, Anu and Others (2005), Disasters in India : Studies of Grim Reality, Rawat, Jaipur.
- Gupta, M.C., Gupta, L.C., Tamini, B.K., Sharma, Vinod, K. (2000), Manual on Natural Disaster Management in India, National Disaster Management Centre, New Delhi.

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# Paper Code : Geo 308 : Political Geography

## Section A

Definition, scope nature and importance of political geography: Its relation with other social sciences, history and development of political geography: pre-modern phase (before 19<sup>th</sup> Century), geopolitics and German school of thought. Global strategic views: views of Mackinder, Spykman, Meinig, Hooson, De Seversky, World's geostrategic regions, types of approaches, trends of politics in the world modern phase (19<sup>th</sup> to 2000 AD).

## Section B

State and nation; idea of state: elements of the state: territory, population, organization and power, concept of nation; nationalism, heart of the state: core areas, the focus: capital city, frontiers and boundaries: definitions, classification and concepts, boundaries as economic barriers, Indias, borders and their problems; buffer zones, the concept of territorial sea and maritime boundaries, landlocked states: problem of access, growth of nations and

disintegration of empires: unitary and federal states, the dying colonialism and resurgent nationalism, supranationalism: form state of blocks.

## Section C

Extending dimensions of political geography, politics and transportation, geography of foreign aid & economic development, emergence of third world block, politico-geographical study of India, political geography of administration, politico-geographical implications of space research. function, methods and trends of electoral geography: voter's participation before voting prediction, conceptual model of the voting decision, operationalization of conceptual decision, gattymandering in relation to India.

## Books Recommended :-

- Adhikari, S. 2004: Political Geography. Rawat Publications, Jaipur.  
Alexander I.M. 1966: World Political Patterns. John Murray and Co., London.  
De Blij, H.J. and Glassner, Martin 1968: Systematic Political Geography. John Wiley, New York.  
Deshpande, C.D. 1992: India- A Regional Interpretation. Northern Book Centre, New Delhi.  
Dikshit, R.D. 1982: Political Geography: A Contemporary Perspective. Tata McGraw-Hill Publishing Co., New Delhi.  
East, W.G. and Spate, O.H.K. 1966: The Changing Map of Asia. Methuen, London.  
Fellmann, J., Getis, A. and Getis, J. 1995: Human Geography: Landscapes of Human Settlements. WCB Brown Publishers, Dubuque.  
Gulia, J.L. and Chattoraj, P.R.: A New Approach to Economic Geography. World Press, Kolkatta.  
Founds, N.J.G. 1972: Political Geography. McGraw Hill, New York.  
Short, J.R. 1982: Political Geography of the 20<sup>th</sup> Century: A Global Analysis. New York.  
साम्बोना, एच.एम. राजनीतिक भूगोल के सिद्धान्त। रत्नगिरी पब्लिकेशन्स।  
Taylor, P. 1985: Political Geography. Longman, London.

## Paper Code : Geo 309 : Social Geography

### Section-A

Definition, nature and scope of social geography. Social geography in the realm of social sciences. Concepts and themes in social geography : Social space. Social segregation. Social justice. Social well-being. Ethnicity.

### Section-B

Evolution of socio-cultural regions in India : Evidence from classical literature. Core and peripheral regions. Attributes of spatial distribution of : Tribes. Religion. Language. Caste.

### Section-C

Social transformation and change in India : Modernization and sanskritization. Role of rural-urban interaction. Problems of social transformation. Social and ethnic diversity of India and national integration. Cultural pluralism and development.

### Books Recommended :-

- Ahmad, Aljazuddin : Social Geography, Rawat Publications, New Delhi, 1999.  
Jones, Emrys and John Eyles : An Introduction to Social Geography, Oxford University Press, London, 1977.  
Jones, Emrys (ed.) : Readings in Social Geography, Oxford University Press, London, 1976.  
Khare, R.S. : Cultural Diversity and Social Discontent, Sage India, New Delhi, Sage India, 1998.  
Mandelbaum, David G. : Society in India, University of California Press, Berkeley, 1970.  
Rao, M.S.A. : Urbanisation and Social Change, Orient Longmans, New Delhi, 1970.  
Sareen, T.R. and S.R. (ed.) : Castes and Tribes of India, Anmol, New Delhi, 1993.  
Singer, Milton and B.S. Cohn (ed.) : Structure and Change in Indian Society, Aldine, Chicago, 1960.  
Singh, K.S. : Tribal Situation in India, Indian Institute of Advanced Studies, Shimla, 1972.  
Sopher, David E. : An Exploration of India, Longman, London, 1980.  
Srinivas, M.N. : Social Change in Modern India, Orient Longman, 1966.  
Srinivas, M.N. (ed.) : Caste : Its Twentieth Century Avatar, Penguin India, New Delhi, 1997.  
Atreya, B.L. et al. (ed.) : Indian Culture, Universal Publications, New Delhi, 1966.  
Dubey, S.C. : Indian Society, National Book Trust, New Delhi, 1991.  
Sen, Amartya, and Dreze Jean : Indian Development : Selected Regional Perspectives, Oxford University Press, Delhi, 1986.

Paper Code GEO 310: Computer Aided Mapping and Thematic Atlas

Minimum Marks : 36

Bifurcation of Marks

Max. Marks: 100

Internal Assessment:

30

Thematic Atlas:

70

**Course Outline**

Each candidate shall be required to prepare a Thematic Atlas using suitable cartographic techniques of designing and mapping. Thematic Atlas focusing on any specific theme of interest will cover any region or area for purpose of mapping. All plates of the Atlas will be prepared with computers. The Thematic Atlas (Project Report) complete in all respects and duly signed by the teacher-in-charge, as having been prepared by the candidate-himself /herself, shall be submitted in duplicate on or before a date to be fixed by the department.

**Books Recommended:-**

1. Date, C.J., 1995: An Introduction to Data Base System, 6<sup>th</sup> edition, Reading Massachusetts; Addison Werley.
2. Dickinson, G.C., 1973: Statistical Mapping and Presentation Statistics, Edward Arnold, London.
3. Fraser Taylor, D.R., (ed.), 1980: Progress in Contemporary Cartography, John Wiley, Chichester U.K.
4. Fraser Taylor, D.R., (ed), 1983: Graphic Communication and Design in Contemporary Cartography, John Wiley & Sons Ltd. New York.
5. Hodykess, A.G., 1970: Maps for Books and Theses, David and Charles, New York.
6. Jones, C., 1997 : Geographic Information System and Computer Cartography, Longman, London.
7. Keats, J.S., 1973: Cartographic Design and Production, Longman, London.
8. Kingsbury, R.C., 1969 : Creative Cartography : An Introduction to Effective Thematic Map Design, Indiana University, Indiana.
9. Kraak M-J., and Ormeling, F., 2004: Cartography : Visualization of Geospatial Data, Pearson Education.
10. Mita, R.P., 1986: Fundamentals of Cartography, Concept Publishers, Delhi.
11. Monkhoues, F.J., and Wilkinson, H.R., 1973: Maps and Diagrams, Methuen, London.
12. Rhind, D.W. and Taylor, D.R.F., (eds.) 1989: Cartography: Past, Present and Future, Elsevier Applied Science Publisher, London.
13. Robenhorest, T.D. and McDermatt, P.D., 1989: Applied Cartography Source Materials for Mapping, Merrill Pub. Co. London.
14. Robinson A. et.al., 1978: Elements of Cartography, John Wiley, New York.
15. Tombin, C.D., 1990: Geographic Information System and Cartographic Modelling, Englewood Cluff, New Jersey.



## M.A./M.Sc. GEOGRAPHY

### (Semester Scheme)

#### Scheme of Examination for IV Semester

##### Course and Internal Assessment:-

- ❖ The student will require to earn Minimum 120 credits out of total 144 credits, in four semesters, for PG degree.
- ❖ Each student has to earn minimum 30 credits per semester (i.e. 120 credits in four semester for PG degree).
- ❖ Each semester of PG courses shall have credits. There will be three core papers and two elective papers (5 credits each) and one core laboratory work (6 credits each).
- ❖ Core Papers (Theory and Practical) are compulsory papers for the students of M.A. / M.Sc. (Geography).
- ❖ The Internal Assessment component comprises of assessment of student's performance on the basis of factors like Attendance, Class Room Participation, Quiz, Home Assignment etc.

##### Examination Pattern:-

- ❖ Each theory paper CCC and ECC shall carry 100 marks.
- ❖ The CCC and ECC will be of 3(Three) hrs duration for each theory paper and 4 hrs duration for each practical paper.

##### Theory Questions will be in Two Parts

- ❖ Part A of theory Paper shall contain 10 (ten) Short Answered Questions, covering entire Syllabus and each question will carry 2(two) marks i.e. part A will be of total 20 marks.

Part B of the Question paper will consist of six (06) questions (two questions from each section). Student will have to attempt four (04) questions in all selecting at least one question from each section. Each question will carry 20 marks i.e. total of 80 marks

- ❖ Each Practical CCC and ECC will be of four hours duration and involve written test on Lab work (04 questions) 60 Marks and Record work and Viva – voce 40 Marks (30+10)

The details of the courses with code, title and the credits assigned are given in the table (appended).

##### Course Category:-

CCC: Compulsory Core Course

ECC: Elective Core Course

40

अकादमिक प्रभारी

## M.A./M.Sc. GEOGRAPHY

### Fourth Semester :-

Sr. No.	Sub. Code	Course Title	Course category	Credit	Hours Per Week
1.	Geo 401	Geography of Rajasthan	CCC	05	04
2.	Geo 402	Agricultural Geography	CCC	05	04
3.	Geo 403	Industrial Geography	CCC	05	04
4.	Geo 404	Practical	CCC	06	07
<b>Elective any Two Papers From The Following :-</b>					
5.	Geo 405	Applied Geography	ECC	05	04
6.	Geo 406	Regional Planning and Development	ECC	05	04
7.	Geo 407	Geography of Water Resources	ECC	05	04
8.	Geo 408	Principles and Application of Remote Sensing and Geographical information System	ECC	05	04
9.	Geo 409	Transport Geography	ECC	05	04
10.	Geo 410	Dissertation	ECC	05	04

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## IV SEMESTER

### Paper Code: Geo 401: Geography of Rajasthan

#### Section-A

Physical aspects of Rajasthan: geological structure, relief, climate, drainage, natural vegetation, environmental pollution-causes and types, drought, desertification, soils, soil erosion and conservation, availability, problems and conservation of water resources.

#### Section B

Economics aspects: irrigation, sources, types, irrigation intensity, crop wise irrigation, quality of irrigation water, problems, irrigation projects: detailed study of Indira Gandhi canal project, Chambal valley project, Mahi bafal sagar project on physical and socio-economic aspects,

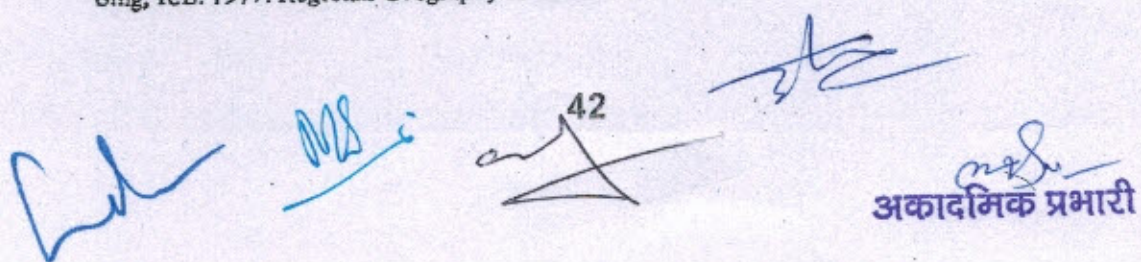
Agriculture: development under five year plans, problems of agriculture development. general land use: live-stock and dairy development, minerals, industries: textile, sugar, cement, marble and granite, fertilizer, zinc and copper smelting, power & energy: hydro-electricity, coal, petroleum, solar energy, bio-energy, transport & trade, development of tourism, desert development programme, tribal areas development programme, Aravalli hill development programme.

#### Section C

Cultural and development aspects: population-number, growth, distribution and density, rural and urban, male and female population, literacy status, occupational structure, schedule castes and schedule tribes, population problems, study of Bhil, Meena and Garasia, settlement: types, building materials and house types and factors affecting settlements in Rajasthan.

#### Books Recommended :-

- Bhalla L.R. 1996-97: Geography of Rajasthan. Kuldeep Publications, Ajmer.  
Dhalsariya, S.S. 1988: Desert Spread and Desertification. Environmental, Jaipur.  
Govt. of Rajasthan Techno-Economics Survey Of Rajasthan. Govt. of Rajasthan Publication.  
Gujar, R.K 1992: Geography of Indira Gandhi Canal, Rajasthan Hindi Granth Academy.  
Jal, E.C. 2014, Rajasthan Manচিত্রাবলি, RBD Publication, Jaipur.  
Lodha, R. & Maheshwari, D. 2001: Geography of Rajasthan. Shahitya Bhawan Publication, Hospital Road, Agra.  
Maheshwari, D. 2008: Geography of Rajasthan. Shahitya Bhawan Publication, Hospital Road, Agra.  
Mishra, V.C. 1967: Geography of Rajasthan. National book trust of India, New Delhi.  
Sharma H.S. and M.L. Sharma 2014: Geography of Rajasthan. Panchcil Puplicher, Jaipur.  
Singh, Atar 1992: Flood Prone Areas of India. Aviskar Publishers Jaipur.  
Sharma B.L. 1984: Agricultural Typology of Rajasthan.  
Sing, R.L. 1977: Regional Geography of India.



अकादमिक प्रभारी

**Paper Code: Geo 402: Agricultural Geography (Elements & Applied)**

**Section A**

**Agriculture geography:** nature and development, origin dispersal and development of agriculture, field survey and mapping in agriculture geography, geographical determinants of agricultural land use: relief and climate, soils, human determinants of agriculture.

**Section B**

**Models in agricultural geography,** diffusion of agriculture innovations, land use and land capability classification, agricultural efficiency productivity, agricultural evaluation, techniques: crop ranking intensity, crop diversification and crop combination regions.

**Section C**

**Agricultural regionalization, agricultural typology, green revolution, agricultural scenario in India, agro-climatic zones: India and Rajasthan, agricultural policy in India.**

**Books Recommended :-**

- Ali Mohammad 1981: Situation of Agricultural Geography. Rajesh Publication, New Delhi.  
Ali Mohammad : Situation of Agricultural, Food and Nutrition in Rural India. Concept Publishing Co., Delhi.  
Ali Mohammad : Dynamics of agriculture Development in India. Concept Publication Co., Delhi.  
ICAR (1956-71): Soil and Water Conservation Research.  
ICAR : Soil Conservation of India.  
Jat, B.C. 2013: Arthik Bhugol. Panchsheel Prakashan, Jaipur.  
Kostowickie, Z. : Agricultural Typology. Polish Academy, Warsaw.  
Symon Lesin 1967: Agricultural Geography. G. Gell and Sons Ltd., London.  
Singh, R.L. (Ed) : Applied Geography. BHU Press, Varanasi.  
Singh P.P. Govind Raju, K.C. and others : new Seeds Adoption and Yield, Sterling Publication Pvt. Ltd., New Delhi.  
Singh, Jasbir : Agricultural Atlas of India. Vishal Publishers.  
Singh, Jasbir : Agricultural Geography of Haryana.  
Noor Mohammad : Agricultural Land use in India. Inter-India Public, Delhi.

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अकादमिक प्रभारी

## Paper Code : Geo 403 : Industrial Geography

### Section A

Evolution of industrialization (India and World), location factors of industries, theories: least cost school, transport cost school, market areas school, marginal location school and behavioural school, new trends in industrial geography, concept of entrepreneur, significance of enterprise and firm, significance of cost and price.

### Section B

Formation and delineation of industrial regions, industrial complexes, industrial regionalization, industrial regions in India: Hooghly side industrial regions, Damodar valley industrial regions, Delhi-Mumbai industrial corridor, industrial policies of India, liberalization, privatization and globalization (special reference of India); special economic zones; industrial regions of World: Ruhr basin industrial region, Great lakes industrial region.

### Section C

Industries: cotton, jute, textile, iron and steel, aluminium, fertilizer, paper and pulp, copper, chemical and pharmaceutical, ship building, automobile, cottage and agro-based industries, tourism industry, concept of optimum location, geographical inertia, multi-location industries, market oriented industries, foot loose industries, raw material oriented industries, manufacturing industries, processing industries.

### Books Recommended :-

- Lloyd and Dicken: Location in Space: A theoretical Approach to Economic Geography.  
M.C. Cart and Lindberg Hodder and Lee Economic Geography: A preface to Economic Geography.  
Smith, D.E. Cox K.P. Man: Industrial Location. A Economic, Geographical Analysis  
Location and Behavior-An Introduction to Human Geography.  
Riley, R.C. 1973: Industrial Geography. Chalto and windus, London.  
Alexanderson Gunnar: Geography of Manufacturing. Englewood Cliffs, N.J.  
Alexander, J.W. : Economic Geography. Prentice Hall, New York.  
Jat, B.C. 2013: Arthik Bhugol. Panchsheel Prakashan, Jaipur.  
Pengerton, N.A.: Fundamentals of Economic Geography. Prentice Hall, New York.  
Besoh, H.: A Geography of world Economy, D. Van Nostrand.  
Pritton, John. N.H.: Regional Analysis and Economic Geography. G. Bell and Sons, London.  
Estall, R.C. and Buchanan, R.O.: Industrial Activity and Economic Geography. Hutchinson and Co., London.  
Ghose, B.C.: Industrial London.  
Hoover, E.M.: The Location of Economic Activity. McGraw Hill Books Co. New York.  
Saxena, Economic Geography.

Paper code : Geo 404 : Geography Practical

Minimum Marks : 36	Bifurcation of Marks	Max. Marks: 100
Written test on Lab work (4 Questions)	40	4 Hours
Record work & Viva – Voce	10+05	
Survey & Viva – Voce	10+05	
Camp Work and Viva- Voce	10+05	
Internal Assessment	15	
Total	100 Marks	

N.B.: In written test there shall be 2 questions from each section. candidates have to attempt 4 questions selecting at least one question from each section. All question carry equal marks. Examination be conducted in batches of not more than 20 candidates in any case. 09 Hours for teaching practicals be provided for a batch of 20 students per week.

### SYLLABUS

#### Section-A

The art of surveying , History of surveying , scope and utility , problems and classification of surveying use of plane table survey , type of traversing , resectioning in plane table survey :two and three point problems , use of Indian pattern clinometers.

#### Section-B

Theodolite :its parts and their functions, use , traverse and traverse computation, independent coordinates.

#### Section -C

Remote Sensing and GPS, interpretation and identification of cultural and physical features on aerial photograph , photo interpretation of land use and Settlements in the field.

Camp work : A topographical survey of 100 hectares in settlement for one week away from the headquarter of institution . survey reports of the same will be prepared with the help of computer technology (word programme & Auto CAD).The marking on the survey report will be awarded by the external examiner in consultation with the internal examiner concerned .

### Books Recommended:

- B.C. Punmia 1988: Surveying and Field Work. Vol. I, Laxmi Publications, New Delhi.  
Breed. C.B. and Hoerner, G.L.: The Principle of Surveying. Vol.I and II, New York.  
Davis, R.B. and Foot, F.S.: Surveying theory and practice. Mc-Graw Hill Book Co., New York.  
Gautam, N.C.: Urban Land use studies through Airphoto Interpretation .  
Roorke Engineering College: Manual of Surveying.  
T.R.Tracy: Surveying theory and practice. John Wiley and Sons, Inc., New York.  
Thrillfall, H.S., A.: Text Book of surveying and Levelling. Charles Graffilin, London.  
Techniques: Pink Publishing House, Madurai.

अकादमिक प्रभारी

## Paper Code : Geo 405 : Applied Geography

### Section A

Meaning, nature and scope, principles and approaches, application of geographical methods of survey and geospatial tools in analysis of resource base, its appraisal, micro, regional planning and demographic attributes.

### Section B

Delineation of resource regions, regional divisions according to variations in levels of socio-economic development, special purpose regions-river valley regions, national capital region, problem regions- hilly regions, tribal regions, regions of drought and floods.

### Section C

Planning for a region's development, state capital region (Jaipur), indicators of development and their data sources, measuring levels of regional development and disparities-case study of Rajasthan, land use policy implications in India with special reference to India, review of policies related to decentralized planning formulation at national, state, district, block and grass root level.

### Books Recommended :-

- Bhat, L.S. et al 1976: Micro-Level planning: A Case Study of Karnal Area, Haryana, K.B. Publications, New Delhi.
- Blair, J. P. and Carroll, M. C. 2009: Local Economic Development – Analysis, Practices, and Globalization. SECOND EDITION, SAGE PUBLICATIONS, INC.
- Chandna, R. C. 2008: Regional Planning and Development. Kalyani Publishers, Ludhiana.
- Dutta, A.K., Misra, H.N. and Chatterjee, M. 2008 (eds.): Explorations in Applied Geography. Printice-Hall of India Private Limited, New Delhi.
- Friedmann, J. 1992: Empowerment: The Politics of Alternative Development. Blackwell, Oxford.
- Gosal, G.S. and Krishan, G. 1984: Regional Disparities in Levels of Socio-Economic Development in Punjab. Vishal Publications, Kurukshetra.
- Gupta, P., and Sdasyuk, G. 1968: Economic Regionalization of India: Problems and Prospects. Census of India, New Delhi.
- Johnson, E.A.J. 1970: The Organisation of Space in Developing Countries. Harvard University Press, Cambridge.
- Kundu, A. and Raza, M. 1982: Indian Economy, The Regional Dimension. Spectrum Publishers, New Delhi.
- Misra, R. P. (ed.) 1992: Regional Planning: Concepts, Techniques, Policies and Case Studies. Concept Publishing Company, New Delhi.
- Nangia, S. 1976: Delhi Metropolitan Region: Rajesh Publication, Delhi.
- Paolone, M. 2009 (ed.): Applied Geography: Principles and Practice. Routledge, London.
- Pathak, C. R. 2003: Spatial Structure and Processes of Development in India. Regional Science Association, Kolkata.
- Raza, M. 1988: Contributions to Indian Geography. Volume X, Regional Development. Heritage Publishers, New Delhi.
- श्रीवास्तव, वी.के. 1997: प्रादेशिक नियोजन और समुचित विकास। वसुधरा प्रकाशन, गोरखपुर।
- Sundaram, K. V. 2004: The Trodden Path: Essays on Regional and Micro Level Planning. Ananya Publications., New Delhi.

Paper Code : Geo 406. Regional Planning and Development

Section A

Conceptual and theoretical framework of regional planning, principles and determination of regional planning, multi-level planning and inter-regional stresses, regional hierarchy, role of geography in preparation of a regional plan, significance of the term integration (political, economic and spatial) for regional planning.

Section B

The process of regional development: indicators of development; levels of regional development and disparities, strategies for development. regional planning in India: concept and indicators of development; regional imbalances; type of regions and methods of regionalization, growth pole and growth centers, environmental issues in regional planning for sustainable development, demarcation and planning regions of India.

Section C

Role of remote sensing, global positioning systems (GPS) and geographic information system (GIS) in modern regional planning; case studies from selected countries; regional planning in USA (TVA), regional planning in India (DVC and NCR) regional planning in Netherlands. Principles of town and country planning.

Books Recommended :-

Dube K. N. (ed) 1990: Planning and Development in India. Asia Publishing House, New Delhi.

Govt. of India 1986: Regional Plan 2001 - National Capital Region. NCRPD, Ministry of Urban Development, New Delhi.

Bhat, L. S. 1973: Regional Planning in India. Statistical Publishing Society, Kolkata.

Blair, J. P. and Carroll, M. C. 2009: Local Economic Development - Analysis, Practices, and Globalization. SECOND EDITION, SAGE PUBLICATIONS, INC.

Chandna, R. C. 2008: Regional Planning and Development. Kalyani Publishers, Ludhiana.

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Hufschmidt, M.M. 1969: Regional Planning: Challenges and Prospectus. Praeger and Company, New York.

Mishra, R.P. 1978: Regional Planning and National Development. Vikas Publications, New Delhi.

Mishra R.P. (ed) 1992: Regional Planning: Concepts, Techniques, Policies and Case Studies. Concept Publications, New Delhi.

श्रीवास्तव, शर्मा एवं चौहान 2008: प्रादेशिक नियोजन और संतुलित विकास। यशुवर्षा प्रकाशन, गोरखपुर।

[www.academia.edu/Papers/In/Economic\\_Geography](http://www.academia.edu/Papers/In/Economic_Geography)

[www.jstor.org/stable/143805](http://www.jstor.org/stable/143805)

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अकादमिक प्रभारी



## Paper Code : Geo 407 : Geography of Water Resource

### Section A

Definition and scope of water resource geography, inventory and distribution of world's water resources, water resources of India, groundwater, hydrological cycle, demand and use of water, irrigation methods.

### Section B

Salinity, alkalinity, overexploitation of groundwater and arsenic problem, water pollution, river water pollution, demand and water supply in industries, flood management, drought and dry land farming.

### Section C

Water conservation/participatory approach, traditional methods of water conservation in India and Rajasthan, integrated basin planning, watershed management, river water disputes, water management by remote sensing technology, environmental disasters and water crisis.

### Books Recommended :-

- Agarwal, Anil 2001: Drought: Try Capturing the Rain, Briefing paper, Down to Earth, Centre for Science and Environment, New Delhi.
- Agarwal, Anil and Narain Sunita, 1998, (eds.): Dying Wisdom: Rise, Fall and Potential of India's Traditional Water Harvesting System. Centre for Science and Environment, New Delhi.
- Black, Magie, 2005: The No-Nonsense Guide to Water. Rawat Publications, Jaipur.
- Black, Magie, 2004: A Matter of Life and Health. OUP, New Delhi.
- Barlow and Clark Tony, 2002: Blue Gold: The Battle Against Corporate Theft of the World's Water. Earthscan, London
- भारती, रघाकर्त, 1998: भारत की नदियाँ। नेशनल बुक ट्रस्ट ऑफ इण्डिया, नई दिल्ली।
- Climate Change, 2001: International Panel on climate Change. Cambridge University Press.
- Clarke, Robin 1991: Water: The International Crisis. Earthscan, London.
- Dams and Development 2000: Report of the World Commission on Dams. November.
- Das, P.K. 1996: The Monsoon. National book Trust, India, New Delhi.
- Dhuruv Narain, V.V., Shastry, G. and Patnaik U.S. 1990: Watershed Management. ICAR, New Delhi.
- Dakshinamurti, C., Michael, A.M. and Mohan, S., 1972: Water Resources of India and their Utilization in Agriculture. IARI Monograph No. 3, New Delhi.
- गुर्जर, आर.के. एवं जाट, बी.सी. 2012: जल संसाधन भूगोल। शिवत पब्लिकेशन, जयपुर।
- Gurjar R.K., Jat B.C., 2011: Geography of Water Resource. Rawat Publication.
- गुर्जर, आर.के. एवं जाट, बी.सी., 2001: जल प्रबंध विज्ञान। पोस्टर पब्लिशर्स, जयपुर।
- Gurjar, R.K. 1990: Geographical Perspectives on Irrigation. Rawat Publications, Jaipur.
- Gould, A., 1997: The Nature of the Environment, Blackwell, London.
- जाट, बी.सी. 2007: जलप्रबंध प्रबंधन पोस्टर पब्लिशर्स। जयपुर।
- Jat. B.C., 1999: Watershed Prioritization and Rainfall Runoff Modelling Using Remote Sensing and GIS Approach. IIRS, Dehradun.

Kimberley, David, 1988: Troubled Water: River, Politics and Pollution, Hilten Shipman, London.

Mahnoi, S.C. and Singh, P.C., 1993: Soil and Water Conservation. Intercooperation Coordination Office, Jaipur.

Narain, Sunita, 2004: Down to Earth, February 29, 2004.

Park, C., 1997: The Environment: Principles and Application. Routledge, London.

Rao, K.L., 1975: India's Water Wealth. Orient Longman, New Delhi.

Singh, Gopal, 2004: A Geography of India. Atma Ram & Sons, New Delhi.

Shiva, Vandana, 2007: Water Wars: Privatization, Pollution and Profit. Pluto Press, London.

Sata Water Resources Plan, 1998: Volume, I, II, III : Tahal consulting Engineer. Ltd. Tel Aviv, Israel.

Sidhartha, K., 1990: Flood in India: A Model for Generating Factors. Conder Patna.

Sidhartha, K., 1989: Drought in India: Spatio Temporal Variations. H.T. Patna.

Singh, R.L., 1971: India: A Regional Geography. NACI, New Delhi.

World, C., 1997: Reflected in Water: A Crisis of Social Responsibility. Cassed London.

Paper Code : Geo 408 : Principal and Application of Remote Sensing and Geography Information System.

Section A

Remote sensing: definition and scope of remote sensing, elements of remote sensing: electromagnetic radiation and interaction with earth surface features, data products and users, atmospheric windows, remote sensing systems: platforms, sensors, resolution and radiometric characteristics, elements of image interpretation and keys, types of aerial photography, aerial cameras types of mosaics, relief displacement and parallax, Satellites: landsat- Mss & Tm, Spot, Noaa-Avhr, Irs, Modis, Radarsat, Ikonos, Quickbird & Cartosat.

Section B

Digital image processing and classification: pre-processing and image enhancement techniques- rectification and restoration, contrast manipulation, density slicing, spatial filtering and band ratio, classification- supervised and unsupervised, post-classification analysis and accuracy assessment, microwave remote sensing, advantages over optical, unique capabilities of microwave, SAR & SLAR.

Section C

RS applications: mapping and monitoring of land use and land cover, forestry and desertification, soil and water resources, remote sensing and hazard mapping and environmental monitoring. introduction to GIS, fundamentals of GIS- geospatial databases

data structure and formats, projections and coordinate system, raster and vector data infrastructure and analysis, integration of remote sensing and GIS.

Books Recommended :-

- American society of Photogrammetry 1983: Manual of Remote sensing. ASP, Falls Church, V.a.  
Barrett E.C. and L.F. Curtis, 1992: Fundamentals of Remote sensing and Air photo Interpretation. Mcmillan, New York.  
Campbell J. 1989: Introduction to Remote Sensing. Guilford, New York.  
Curran, Paul J. 1985: Principles of Remote Sensing. Longman, London.  
चुनियाल, डी.डी. 2004: दूरसन्धेदन तथा भौगोलिक सूचना प्रणाली। शारदा पुस्तक प्रकाशन, इलाहाबाद।  
Hord R.M. 1989: Digital Image Processing of Remotely Sensed Data. Academic, New York.  
Lillesand, T., Kiefer, R.W. and Chipman, J. 2007: Remote Sensing and Image Interpretation. John Wiley & Sons, New York.  
Jalan, Seema 2010: Image Processing, Sahityagaar, Jaipur.  
Luder D. 1959: Aerial photography Interpretation: Principles and Application. McGraw Hill, New York.  
Pratt W.K. 1978: Digital Image Processing. John Wiley & Sons, New York.  
Rao D.P.(ed.) 1988: Remote Sensing for Earth Resources. Association of Exploration Geophysicist, Hyderabad.  
Thomas M. Lillesand and Ralph W. Kiefer 1994: Remote Sensing and image interpretation. John Wiley & Sons, New York.

Paper Code : Geo 409 : Transport Geography  
Section -A

Meaning , scope and nature of transport geography , nature of inter regional flows basis for interaction , modals of spatial interaction , distance decay theory, gravity modals and potential surface models , issues and challenges in transport geography .

Section -B

Transportation and spatial structure , transportation models ,model accessibility and hinter- lands , accessibility and land use , transport economics, transport problems of metropolitan areas and urban travel patterns.

Section -C

Developments of transport system in india , role of transportation in regional development in india, major transport regions , transport – network , structure , connectivity and transport mobility linkages.

**Books Recommended:-**

Berry , B.J.L. 1966 : Essays on Commodity Flow and the Spatial Structure of Indian Economy. University of Chicago, Chicago.

Elito, H. and E. Michael(eds.) 1974: Transportation Geography . Comments and Readings M.C. Growth M.S.

Hagget, P. and Chorley, R. 1969 : Network Analysis in Geography. Edward Arnold, London.

Hoyle, B.S. 1998: Modern Transport Geography. Wiley, New York.

Hensher, D.A. 2004: Handbook of Transport Geography and Spatial Systems. Elsevier, London.

Kauesty, K.J. 1963 : Structure of Transportation Network. University of Chicago, Chicago.

Rodrigue, J.P. et al 2013 : The Geography of Transport Systems, Routledge, New York.

सिंह, के.एन.2003: परिवहन भूगोल । ज्ञानोदय प्रकाशन, गोरखपुर।

Taaffe, E.L. and Gautir, H.L.1973: Geography of Transportation. Prentice Hall, Englewood Cliffe.

White, H.P. and Senior , M.L. 1983 : Transport Geography . Longman, London.

Paper Code : Geo 410 : Dissertation

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अकादमिक प्रभागी