

SOLAPUR UNIVERSITY, SOLAPUR



Name of the Faculty Science

Syllabus

Name of the Course M.A./M.Sc. II Geography

CBCS (True Spirit)

With effect from June-2017

M.Sc. II - Geography C B C S w.e.f.2017-18 (Revised Syllabus)									
Sem.-III	Code	Title of the Paper	Semester Exam.			L	T	P	Credits
		Hard Core	UA	IA	Total				
Geog.	HCT 3.1	Agricultural Geography	70	30	100	4	--	--	4
	HCT 3.2	Settlement Geography	70	30	100	4	--	--	4
Soft Core (Any one)									
	SCT 3.1	Biogeography	70	30	100	4	--	--	4
	SCT3.2	Geography of Marketing	70	30	100	4	--	--	
Open Elective (Anyone)									
	OET 3.1	Cultural Geography	70	30	100	4	--	--	4
	OET 3.2	Commercial Geography	70	30	100	4	--	--	
Practical									
	HCP3.1	Quantitative Techniques in Economic Geography	35	15	50	--	--	2	2
	HCP3.2	Introduction to Computer	35	15	50	--	--	2	2
Soft Core (Any one)									
	SCP3.1	Applications of Computer in Geography	35	15	50	--	--	2	2
	SCP3.2	Map Projection and Cartography	35	15	50	--	--	2	
Open Elective (Anyone)									
	OEP3.1	Quantitative Techniques in Population & Settlement Geography	35	15	50	--	--	2	2
	OEP3.2	Global Positioning System and Geographical Information System	35	15	50	--	--	2	
		Tutorial		25		-			1
Total for Third Semester			420	205	625				25
Semester IV									
Sem-IV	Code	Title of the Paper	Semester Exam			L	T	P	Credits
Geog		Hard Core	UA	IA	Total				
		Practical's							
	HCT 4.1	Regional Planning and Development in India	70	30	100	4	--	-	4
	HCT 4.2	Development of Modern Geography	70	30	100	4	--	-	4
	HCT 4.3	Political Geography	70	30	100	4	--	-	4
Soft Core (Any one)									
	SCT4.1	Geography of Tourism	70	30	100	4	--	-	4
	SCT4.2	Geography of Manufacturing	70	30	100	4	--	-	
Practical									
	HCP 4.1	Introduction to Remote sensing and GIS	35	15	50	--	--	2	2
	HCP 4.2	Application of Remote Sensing	35	15	50	--	--	2	2
	HCP 4.3 (MP)	Research Methodology and Project work	70	30	100	--	--	4	4
		Tutorial		25		-	-	-	1
Total for Forth Semester			420	205	625	-	-	-	25

L = Lecture, T= Tutorials, P= Practical, IA= Internal Assessment, 4 Credits of Theory = 4 Hours of teaching per week, 2 credits of Practical = 4 Hours per week, HCT= Hard core theory, SCT= Soft core theory, HCP= Hard core Practical, SCP= Soft core Practical, OET= Open elective theory, OEP= Open elective Practical, MP= Major Project,

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Revised Syllabus

CBCS w.e.f. June 2017

Class – M.A./M.Sc. – II

Semester – III

Sub – Geography Paper No. IX

Name of the Paper – Agricultural Geography

Code: HCT 3.1

Credit 04

Total Marks: - 100

Total Lectures: - 60

Objective: -

- 1) To familiarize the students with concept origin and development of agriculture; and to examine the role of agricultural determinants. The course further aims to make familiarize the students with the application of various theories, models, Agricultural system, and productivity.
- 2) To reexamine green revolution in India, contemporary issues & agricultural problems in Solapur district.

Unit No.	Descriptions	No. of Lectures
I	Agricultural Geography: Definition, Nature & Scope, Origin & Evaluation of Agriculture, Approaches to the study of Agricultural Geography: 1) Systematic 2) Regional	15
II	Determinants of Agriculture – Physical, economic and technological Determinants, World Agricultural systems: Location, distribution, types and characteristics of Shifting Cultivation, Intensive, Extensive, Plantation, Mixed Agriculture and Dairy Farming.	15
III	Concepts and techniques of delimitation of agricultural regions- Crop combination, Crop diversification, measurements of agricultural Productivity; Agricultural land use Model- Von Thunen's Model, & Jonasson's Model.	15
IV	Green Revolution in India-Nature and impact of Socio-Economic, problems and prospects in the adoption of Green Revolution; ecological implications of the green revolution; Contemporary issues: food, nutrition and Hunger, Agricultural policies in India.	15

Reference Books

Sr. No.	Name of Books	Name of Authors
1	Geography of Agriculture; Thems in Research. Prentice-Hall Englewood cliff. London.	Gregor H. F. (1970)
2	Agricultural Geography. Oxford University Press, London	Ilbury B.W. (1983)
3	Agriculture and Environment Change John Wiely, London.	Mannlon A. M. (1995)
4	Studies in Agricultural Geography/Rajesh Publication New Delhi	Mohammed Ali. (1978)
5	Agricultural Geography, New Delhi	Singh Jasbir&Dhillon S. S.
6	Agricultural Geography, Newton Abbot	Tarrant J. R. (1974)
7	Poverty Agriculture & Economic Growth, Vikas Publication New Delhi	Bhatia B. M. (1977)
8	The agricultural Systems of the World, Cambridge University Press	Grigg D. B. (1973)
9	Systematic Agricultural Geography, Rawat Publication Jaipur (India)	HussainMajid (1999)
10	Agricultural Geography, London	Symon. (1968)
11	Perspective in Agricultural Geography, Six Volume	Noor Mohammed
12	Green-Revolution How is it? Vishal Publication Kurukshetra.	Jasbir Singh (1973)

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Class – M.A./M.Sc. – II

Semester – III

Sub – Geography Paper No. X

Name of the Paper – Settlement Geography

Code: HCT 3.2

Credit 04

Total Marks: - 100

Total Lectures: - 60

Objective: -

- 1) To familiarize the students with the conceptual, theoretical and empirical development in settlement studies in Geography.
- 2) To provide an idea to the students about the national issues of settlements.

Unit No.	Sub Units	No. of Lectures
I	Settlement Geography: -Definitions, nature and scope, significance and evolution of human settlement; trend and growth of Human Settlement.	15
II	Rural Settlement: Site and situation, types & pattern, size and growth of Rural settlement, Functional Classification of Rural settlement, House types-based on building material, Environmental, socio-economic, & Cultural Factors influencing the dynamics structure of Rural Settlement.	15
III	Urban Geography: Meaning, nature and scope of Urban Geography, Functional classification of Urban centers, Morphological structure of cities- The Concentric Zone Theory, The Sector Theory, The multinuclei Theory.	15
IV	Theories of Christaller and August Losch and their applications. Measurement of centrality and hierarchy. Concept of Primate city, city region and Rank-size rule; Issues, perspective and policies on population & human Settlement	15

Reference Books

Sr. No.	Name of Books
1	Ambrose, Peter, Concepts in Geography Vol.-I Settlement Pattern, Longman 197.
2	Census of India, House types and Settlement Patterns of Villages in India, GOI, New Delhi 1961.
3	Singh R. L. and KashiNath Singh (Editors); Readings in Rural Settlements Geography, National Geographical Society of India. Varanasi, 1975.
4	Ucko, M.J., Ruth Tringham and G.W. Dimbleby (editors), Man, Settlement and Urbanism, Duckworth 1972.
5	United Nations Centre for Human Settlements (HABITAT), An Urbanising World, Global Report on Human Settlements, Oxford University Press for HABITAT 1996.
6	Hudson, F. S. (1977) Geography of Settlement Mcdonadls and Evas New York
7	Singh R. V. Geography of settlement, Rawat Pub. Jaipur
8	Mandel R B (1979): Introduction to Rural settlement

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Class – M.A./M.Sc. – II

Semester – III

Sub – Geography Paper No. XI

Name of the Paper – Biogeography

Code: SCT 3.1

Credit 04

Total Marks: - 100

Total Lectures: - 60

Objective: -

- 1) To introduce the student the concept of Biogeography and its interpretation.
- 2) To introduce the students with climate, physical environment and their interactions with the living organisms.
- 3) To introduce the students with the living and nonliving environments and their interactions with special reference to India.
- 4) To make aware about conservation of biodiversity and biotic resources.

Course Contents

Unit No.	Sub Unit	No. of Lectures
I	Biography:- I. Introduction II. Definition, Nature and scope, Significance and Development. III. Branches of Biogeography.	15
II	Ecosystems :- I. Ecosystem concept and Meaning, Elements & types Habitat, Plant & Animal association II. Functions of Ecosystem-Food Chain, Food web, energy pyramid with example. III. Concept of Biogeographic Region & Biomes; Major Biomes in the World- Tropical & Temperate Forest, Grassland, Desert & mountain.	15

III	<p>Introduction to Plant and Zoo Geography:</p> <p>A. Plant Geography</p> <p>I. Factors influencing on plants</p> <p>II. World-distribution of forests</p> <p>III. Plant-evolution, adoption, speciation, extinction, colonization & dispersal Importance of Plants.</p> <p>B. Zoo Geography:</p> <p>I. Relationship of zoogeography with the environment.</p> <p>II. Migration & dispersal of animals.</p> <p>III. Causes of mitigation and their effects.</p>	15
IV	<p>Paleorecords:</p> <p>I. Paleorecords of plants and animals</p> <p>II. Paleorecords of climatic changes</p> <p>III. Records of environmental changes in India.</p> <p>Conservation of biotic resources:</p> <p>I. National forest policy of India.</p> <p>II. Conversation of biotic resources.</p> <p>III. Legal protection to plants and animals.</p>	15

Reference Books

Sr.No.	Name of Books	Name of Authors
1	Man & Environment in India through ages, Books & Books	Agarwal D. P. 1972
2	Earth an living planet, ELBS, London.	Bradshaw M. J. 1979
3	Biogeography an ecological and evolutionary approach	Cox C.D. & Moore P.D. 1993
4	Environment and Ecology of early man in northern India, R.B. Publication Corp.	Gaur R. 1987
5	Fundamentals of Biogeography Rout ledge, USA	Huggett R. J. 1998
6	Indian geosphere – biosphere, Her Anand Publication Delhi	Khoshoo T.N. & Sharma M. (edi) 1991
7	Encyclopedia of Environmental Science. Megrew Hill.	Lapedes D. N. (edi) 1974
8	Basic Biogeography 2 nd edition Longman, London	Pears N. 1985
9	Biogeography, English Language Book Society, London.	Robinson H. 1982
10	Biogeography: - Natural & Cultural Longman, London	Simmon I. G. 1994
11	Biogeography: - A study of plants & ecosphere. 3 rd edition. Oliver & Boyd, USA.	Tivyj. 1992

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Class – M.A./M.Sc. – II

Semester – III

Sub – Geography Paper No. XI

Name of the Paper – Geography of Marketing

Code: SCT 3.2

Credit 04

Total Marks: - 100

Total Lectures: - 60

Objectives:-

- 1) To familiarize the students with the aspects of marketing which have a bearing on the subject matter of Geography.
- 2) To acquaint the students with Nature, Scope and Significance of Marketing Geography with locational aspects.
- 3) To understand the morphology of Markets with its concepts, components and shopping centers within and between regions.
- 4) To understand the market channels with different trades and services.
- 5) To understand the theoretical frame work of central places.
- 6) To understand the role of market centers in Regional Planning and development..

Course contents

Unit No.	Sub Units	No. of Lectures
I	Meaning Nature, Scope, and significance of geography of marketing, Concepts of market- market centre, marketing, market area and market cycle, Role of Market Centres in regional planning and development	15
II	a) Classification of Markets:, Based on periodicity, census, status, hierarchy& location. b) Locational Analysis:, Location in relation to transportation, Agricultural land use, surrounding villages.	15
III	Market Morphology:, Concepts, components, Types of shopping centers, Marketing Channels:-Retailing, whole – selling and services	15
IV	Theoretical frame work:-Central Place theory of Christaller and AugustLosch, general attraction theory and Reilly – Break point theory	15

Reference Books

Sr. No.	Name of Book	Name of Authors
1	Geography of Marketing, Longman, London	Garnier B.J. & Debbler A. (1977)
2	Marketing Geography, Rawat Publication, Jaipur	Saxena H. M. (1990)
3	Geography of Markets centres and Retail distribution, Prentice Hall, Englewood N.J.	Berry B.J.L. (1964)
4	Periodic Markets, Daily Markets and fairs A bibliographic centre for development studies, swan sec	Bronmtey. R. J. (1975)
5	Marketing Geography, Mathewe & Co. London	Daview R.L. (1976)
6	Market towns and spial development in India, N.C.A.E.R. New Delhi	N.C.A.E.R. (1983)
7	Spatial organization of market centres.	Dixit R.S. (1988)

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Class – M.A./M.Sc. – II

Semester – III

Sub – Geography Paper No. XII

Name of the Paper – Cultural Geography

Code: OET 3.1

Credit 04

Total Marks: - 100

Total Lectures: - 60

Objective: -

- 1) To understand diversity of culture in the world as well as in India.
- 2) To comprehend the diffusion of various ethnic traits and religions.
- 3) To understand the relationship between culture and pattern of living and economic development.

Course Contents

Unit No.	Sub Units	No. of Lectures
I	Introduction, evolution, definition, nature, scope, element, component of culture, significance of cultural Geography.	15
II	Concept of culture, Bases of cultural diversity, Race, Religion and language, cultural diversity and regionalization in India. Concept of cultural hearths and cultural diffusion, world cultural realms.	15
III	Socio-Cultural development and well being indicators. Cultural pattern of rural and urban society. Social and cultural processes in the developing countries with special reference to India.	15
IV	Tribal groups, diffusion of Religion and Ethnic traits in the world. Economic activities and cultural adaptation- Agricultural, Industrial and modern technological changes and their geographic implications.	15

Reference Books

Sr. No.	Name of Books	Name of Authors
1	Social Geography, Rawat Publication Jaipur	Ahmad Aijarudin (1999)
2	A Geography of Mankind, Mc-grew-K Book Co. New York	Broek, Jan O. M. & Webb. John W. (1973)
3	An introduction to cultural Geography, Unwin Hyman London.	Jackson Peter (1989)
4	Cultural geography, - People places and Environment west Publishing Co. New york.	Jackon, Richard H and Loyd E. Hudman (1990)
5	An Introduction to Social Geography, - Oxford University Press Oxford.	Jones, Emrys and Eyles John (1997)
6	Human Geography – Rawat Publication Jaipur.	MajidHussain (1994)
7	India culture Society and economy Inter India Publication, New Delhi	Mukherjee A. B.K. Arijazuddin A (1985)
8	A place in the world cultures and Globalization, Oxford University, New York	Massey D. K. Jess P. (1995)
9	Cultural Geography – Rout, leldge, Publication, London.	Crang Mike (1998)

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Class – M.A./M.Sc. – II

Semester – III

Sub – Geography Paper No. XII

Name of the Paper – Commercial Geography

Code: OET 3.2

Credit 04

Total Marks: - 100

Total Lectures: - 60

Objectives:

1. To understand the basic concept of commercial Geography.
2. To make the student of commerce aware about the relationship between the geographical factors and economic activities.
3. To acquaint the student about dynamic aspect of commercial Geography.
4. To provide the information about concept of population and tourism.

Course Content:

Unit No.	Unit	Sub-Unit	No. of Periods
I	Introduction to Commercial Geography	1.1 Definition, Nature and Scope of Commercial Geography 1.2 Approaches to the study of Commercial Geography 1.3 Importance of Commercial Geography	15
II	Geographical environment and Commerce	2.1 Physical and Cultural Environment 2.2 Classification of economic activities 2.3 Contribution of economic activities in national development	15
III	Trade, Transport and Industries	3.1 Geographical factors affecting on international trade 3.2 India's foreign trade 3.3 Major International Rail, Sea & Air routes 3.4 Importance of transportation in commercial development 3.5 Major industries in India-Iron & steel, Cotton Textile , Automobile, IT Industries	15
IV	Population and Tourism	4.1 Concept of optimum population, over population and under population 4.2 Geographical factor influencing tourism 4.3 Tourism industry and Agro-tourism in India.	15

References:

1. Alexander J.W. (1976):Economic Geography, Prentice hall of India, New Delhi.
2. Robinson H & Bamford C.G. (1978): Geography of Transport, Macdonald & Evans USA.
3. Commercial Geography – Sir Dudley Stamp
4. Economic and Commercial Geography – Gupta
5. Watts H.D.(1987) : Industrial Geography, Longman Scientific & Technical New York

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Class – M.A./M.Sc. – II

Semester – III

Sub – Geography (Practical Paper No. IX)

Name of the Paper – Quantitative Techniques in Economic Geography

Code: HCP 3.1

Credit 02

Total Marks: - 50

Total Lectures: - 45

Objectives:

- 1) To understand the students to the quantitative techniques in agricultural geography.
- 2) To acquaint the student to the quantitative techniques applied in marketing geography.

Unit No.	Name of the Units	Description	Lectures
I	Quantitative Techniques in Agricultural Geography	<ol style="list-style-type: none">1. Measurement of agricultural productivity- Kendall's method, Sapre and Deshpande's method.2. Crop Combination method of Weaver and Doi.3. Crop Concentration-Bhatia's method.4. Crop Diversification-Bhatia's method.	25
II	Quantitative Techniques Applied in Marketing Geography	<ol style="list-style-type: none">1. Basic Gravity Model.2. Law of Retail Gravitation3. Breaking Point Theory4. Accessibility of Transport network.	20
	Journal		

Reference Books

Sr. No.	Name of Books
1	Gregary, S. Statistical Methods and the Geographers. Longman Group Ltd.
2	Hammond. R and McCulloch,-Quantitative Techniques in Geography: an introduction, Clarendon Press, Oxford.
3	Woodcock R. G. & Bailey M. J. – Quantitative Geography, Mac Donald & Erans Ltd. London.
4	Elhance D. N. – Fundamentals of Statistics, KitabMahal, Allahbad.
5	MahmoodAslam Statistical Methods in Geography.
6	Cole and king-Quantitative Geography.
7	Saxena. H. M. Geography of Marketing; Concepts and methods, New Delhi
8	Singh Jasbir-An Agricultural Geography, Vishal Publication, Kurukshetra.
9	Clarke. J. I. – Population Geography, Pergamoh Press, London.
10	Chandana and siddhu – Population Geography

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Class – M.A./M.Sc. – II

Semester – III

Sub – Geography (Practical Paper No. X)

Name of the Paper – Introduction to Computer

Code: HCP 3.2

Credit 02

Total Marks: - 50

Total Lectures: - 45

Objectives: -

- 1) To understand the terms, concepts, involved in computer.
- 2) To familiarize the student with Internet, Browser and web page.

Unit No.	Sub Units	Lectures
I	Introduction to computer, Definition, characteristics, operating system, Introduction to Dos, Window, excel. Application of computer in Geography	25
II	Importance of information technology in Geographical studies - advantages of Internet. Browsing and surfing the geographical sites Web page. Down loading files.	20
	Journal	

Reference Books

Sr. No.	Name of Books	Name of Authors
1	Computer Programming for Geographer, Longman London	D. J. unwin& J. A. Dawson (1987)
2	Computer in Geography, Longman Scientific and Technical, London.	David J. Magthre (1989)
3	Computer Application in Gegraphy, Jahn Wiley & Sons, New York U. S. A.	Paul M. Mather (1993)
4	Quantitative Geography	Cole and King (1968)
5	Quantitative Technique in Geography, Clarendon press – Oxford	Himmond B. (1974)
6	Computer System and Application,	RustanShorff
7	Computer System a Application, BPB publication, new Delhi	Sinha&Sinha (2005)

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Class – M.A./M.Sc. – II

Semester – III

Sub – Geography (Practical Paper No. XI)

Name of the Paper – Applications of Computer in Geography

Code: SCP 3.1

Credit 02

Total Marks: - 50

Total Lectures: - 45

Objectives: -

- 3) To familiarise with geographical data and data structure.
- 4) To acquaint the student to the computer cartography.

Unit No.	Sub Units	Lectures
I	Computer and Geographic data, scale of measurement- Nominal, Ordinal, Interval, Ratio; Data Structure, Location of data.	20
II	Computer in Cartography – Simple exercise for representation of Geographical data, Histogram, Bar graph, line graph, multiple line graph, scatter diagram, pie chart (diagram). Computation Analysis: Measures of central tendency, Quartile deviation, standard deviation, correlation 'r' value and trend line with help of computer.	25
	Journal	

Reference Books

Sr. No.	Name of Books	Name of Authors
1	Computer Programming for Geographer, Longman London	D. J. unwin & J. A. Dawson (1987)
2	Computer in Geography, Longman Scientific and Technical, London.	David J. Magthre (1989)
3	Computer Application in Geography, John Wiley & Sons, New York U. S. A.	Paul M. Mather (1993)
4	Quantitative Geography	Cole and King (1968)
5	Quantitative Technique in Geography, Clarendon press – Oxford	Himmond B. (1974)
6	Computer System and Application,	Rustan Shorff
7	Computer System a Application, BPB publication, new Delhi	Sinha & Sinha (2005)

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Class – M.A./M.Sc. – II

Semester – III

Sub – Geography (Practical Paper No. XI)

Name of the Paper – Map Projection and Cartography

Code: SCP 3.2

Credit 02

Total Marks: - 50

Total Lectures: - 45

Objectives: -

1. To understand terms and types of map projection.
2. To acquaint the students to the cartographic techniques.

Unit No.	Sub Units	Lectures
I	Map Projection: <ol style="list-style-type: none">1. The Earth: its shape and size; Datum and co-ordinate systems; Geographical co-ordinate, Projected co-ordinate and grid system.2. Choice and classification of map projections.3. Construction, properties and uses of projections: 1) Steriographic Polar Zenithal projection. 2) Orthographic Polar Zenithal Projection. 3)Bonne's Conical Projection.4) Conical Equal Area Projection with one standard Parallel 5)Simple Cylindrical Projection. 6) Cylindrical Equal Area Projection.	25
II	Cartography History and Development of Cartography, Sources of cartographic data, Scale: types & importance, Cartographic methods and techniques for preparation of maps and diagrams, General maps: types and applications, Thematic maps: types and applications.	20
	Journal	

References:

1. Hofmann-Wellenhof, B., and Moritz, H. (2006): Physical Geodesy (2nd d.), springer, 420pp.
2. Iliffe, J., and Lott, R. (2008): Datums and Map Projections for Remote sensing, GIS, and Surveying (2nd Ed.), Whittles Publishing, 192pp.
3. Kaplan, E.D., and Hegarty, C.J. (2006): Understanding GPS: Principles and Applications (2nd Ed.), Artech house, Norwood, MA, USA, 724pp.
4. Kimerling, J., Buckley, A.R., Muehrcke, P.C., and Muehrcke, J.O. (2011): Map Use: Reading, Analysis, Interpretation (7th Ed.), ESRI Press, 620pp.
5. Krygier, J., and Wood, D. (2011): Making Maps: A Visual Guide to Map Design for GIS (2nd Ed.), The Guilford Press, New York, 256pp.
6. Lo, C.P., and Yeung, A.K.W. (2006): Concepts and Techniques of Geographic Information Systems (2nd Ed.), Prentice hall, 544pp.
7. Misra, R.P., and Ramesh, A. (1999): Fundamentals of Cartography, Concept Publishing, New Delhi.
8. Nathanson, J.A., Lanzafama, M., and Kissam, P. (2010): Surveying Fundamentals and Practices (6th Ed.), Prentice Hall, 360pp.
9. Robinson, A.H., Morrison, J.L., Muehrcke, P.C., Kimerling, A.J., and Guptill, S.C. (1995): Elements of Cartography (6th Ed.), Wiley, New York, 688pp.
10. Singh, R.L., and Singh, R.P.B. (1993): Elements of Practical Geography, Kalyani Publishers, New Delhi, India.
11. Slocum, T.A., McMaster, R.B., Kessler, F.C., and Howard, H.H. (2008): Thematic Cartography and Geovisualization (3rd Ed.), Prentice Hall, 576pp.
12. Dent, B., Torguson, J., and Hodler, T. (2008): Cartography: Thematic Map Design (6th Ed.), McGraw-Hill, 368pp.

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CBCS w.e.f. June 2017

Class – M.A./M.Sc. – II

Semester – III

Sub – Geography (Practical Paper No. XII)

Name of the Paper – Quantitative Techniques in Population and Settlement Geography

Code: OEP 3.1

Credit 02

Total Marks: - 50

Total Lectures: - 45

Objectives:

- 1) To understand the students to the quantitative techniques in population geography.
- 2) To acquaint the student to the quantitative techniques applied in settlement geography.

Unit No.	Name of the Units	Description	Lectures
I	Quantitative Techniques in Population Geography	<ol style="list-style-type: none">1. Measurement of birth rates, age-specific, crude2. Measurement of death rates3. Population projection by semi Average method.4. Population projection by Least Squares method.5. Lorenz Curve.	25
II	Quantitative Techniques in Settlement Geography	<ol style="list-style-type: none">1. Nelson's method of functional classification of towns.2. Nearest Neighbour Analysis.3. Rank-Size Rule.	20
	Journal		

Reference Books

Sr. No.	Name of Books
1	Gregary, S. Statistical Methods and the Geographers. Longman Group Ltd.
2	Hammond. R and McCullogh,-Quantitative Techniques in Geography: an introduction, Clarendon Press, Oxford.
3	Woodcock R. G. & Bailey M. J. – Quantitative Geography, Mac Donald & Erans Ltd. London.
4	Elhance D. N. – Fundamentals of Statistics, KitabMahal, Allahbad.
5	MahmoodAslam Statistical Methods in Geography.
6	Cole and king-Quantitative Geography.
7	Saxena. H. M. Geography of Marketing; Concepts and methods, New Delhi
8	Singh Jasbir-An Agricultural Geography, Vishal Publication, Kurukshetra.
9	Clarke. J. I. – Population Geography, Pergamoh Press, London.
10	Chandana and siddhu – Population Geography

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Class – M.A./M.Sc. – II

Semester – III

Sub – Geography (Practical Paper No. XII)

Name of the Paper – Global Positioning System and Geographical Information System

Code: OEP 3.2

Credit 02

Total Marks: - 50

Total Lectures: - 45

Objectives:

1. To be aware of advanced techniques in geography.
2. To understand the use of GIS and GPS techniques in planning and development purposes.

Unit No.	Name of the Units	Description	Lectures
I	Introduction to GPS	Introduction to GPS; Types of GPS; GPS satellite; data receiver and control points; Differential GPS; Sources of GPS errors; Application of GPS in surveying, mapping and navigation.	20
II	Cartographic Techniques with the help of GIS	Introduction to ArcGIS and KOSMO, - To Prepare following Maps with the help of ArcGIS and KOSMO-1. Choropleth Map: i) Shading ii) Colour 2. Dot Map 3. Transformation of Dot map into Isopleth Map 4. Proportional Circle Map: 2D and 3D Cartographic Techniques in Population Geography: Preparation of Following Maps: 1. Density of Population 2. Concentration of Population 3. Sex Ratios 4. Proportion of Category wise Population 5. Religion wise composition 6. Literacy Rate	25
	Journal		

References:

1. Bolstad, P. (2007)GIS Fundamentals: A First Text on Geographic Information Systems (3rd Ed.), Eider Press, 620pp.
2. Brewer, C. (2005):Designing Better Maps: A Guide for GIS Users,ESRI Press, 220pp.
3. Demers, M.N. (2008): Fundamentals of Geographical Information Systems (4th Ed.),Wiley, 443pp.
4. Diggelen, F. (2009):A-GPS: Assisted GPS, GNSS, and SBAS, Artech House, Norwood, MA, USA, 400pp.
5. El-Rabbany, A. (2002):Introduction to GPS: the Global Positioning System,Artech House, Norwood, MA, USA, 194pp.
6. Heywood, I.,Cornelius, S., and Carver, S.(2011):An Introduction to Geographical Information System (4th Ed.),Prentice hall, 446pp.
7. Longley, P.A.,Goodchild, M., Maguire, D.J., and Rhind, D.W. (2010): Geographic Information Systems and Science (3rd Ed.),wiley, Chichester, UK, 560pp.
8. Reddy, M.A. (2008):Textbook of Remote Sensing and Geographical Information System (3rd Ed.),BS Publications, Hyderabad, 476pp.
9. Taylor, G.,andBlewitt, G. (2006): Intelligent Positioning: GIS-GPS Unification,Wiley, Chichester, UK, 194pp.

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Class – M.A./M.Sc. – II

Semester – IV

Sub – Geography Paper No. XIII

Name of the Paper – Regional Planning and Development in India

Code: HCT 4.1

Credit 04

Total Marks: - 100

Total Lectures: - 60

Objectives: -

- 1) To understand and evaluate the concept of region in geography.
- 2) To understand the role and relevance of region in regional planning.
- 3) To identify the causes of regional differences in development, perspectives & policy imperatives.
- 4) To understand the problems of regional development.

Course Contents

Unit No.	Sub Units	No. of Lectures
I	Region- Concept of Region, Characteristics, Types of Region-Formal or Natural and Functional, Classification of Region-Based on Physical, Cultural and Physical-Cultural Variation, Hierarchy of Region. Planning-Concept, Types, Regional planning- Concept and Approaches.	15
II	Concept of Growth and Development, Indicators of Development, Measurement of Regional Development, Regional imbalances in India-Agricultural and Industrial.	15
III	Theoretical Framework for Regional Planning –Spread and Backwash Concept, Central Place Theory, Growth Pole Theory and Growth Foci Approach.	15
IV	Concept of Multi-level Planning, Role of Panchayat Raj System in Regional Development (Village, Tahsil and District), Regional Development in India and Maharashtra-Problems and Prospects, Regional Development in Macro, Meso and Micro level- Problems and Prospects.	15

Reference Books

Sr. No.	Name of Books
1	Bhat L.S.(1973): Regional Planning in India, Statistical Publishing Society, Calcutta
2	Chand M. &Puri V.(1985): Regional Planning in India Allied Publishers Ltd., New Delhi.
3	Gosal, G.S. and Krishan, G: Regional Disparities in Levels of Socio-economic Development in Punjab, Vishal Publication, Kurukshetra, 1984.
4	Government of India, Planning Commission: Third Five Year Plan, Chapter on Regional Imbalances in Development, New Delhi 1961.
5	Kuklinski, A.R. (ed.) Growth Poles and Growth Centres in Regional Planning Mouton, The Hague, 1972
6	Regional Planning concepts Techniques, Polies and case studies concept publishing crop New Delhi 1992
7	Misra, R. P. and Other (editors) Regional Development Planning in India – A Strategy. Institute of Development Studies Mysore, 1974.
8	Myrdal, G: Economic Theory and Under Development Regions Gerald Dockworth, London 1957

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Class – M.A./M.Sc. – II

Semester – IV

Sub – Geography Paper No. XIV

Name of the Paper – Development of Modern Geography

Code: HCT 4.2

Credit 04

Total Marks: - 100

Total Lectures: - 60

Objectives: -

- 1) To introduce the students to the philosophical and methodological foundations of the subject & its place in the world of knowledge.
- 2) To familiarize student with the major land marks in development of geographic thought at different periods of time.

Course Contents

Unit No.	Sub Units	No. of Lectures
I	i) The field of Geography: Its place in the classification of sciences, ii) Development of Geography through ages, the ancient and medieval period iii) Age of exploration and impact of discoveries on the development of geography.	15
II	A)Rise of Dualisms in Geography, dualism the myth & realism, dualism between Regional & Systematic geography, dualism between Physical and Human geography. B)Development of concepts: Environmental–determinism, Possibilism	15
III	Founders of Modern Geography:-Carl Ritter, Alexander Von. Humboldt, Vidal-de-la-Blache, H. J. Mackinder, Richard Hartshorne.	15
IV	A)Approaches in Geography: - i) Positivism ii) Humanism iii) Radicalism, iv) Behaviouralism B)Measurement and explanation in Geography: Laws, theories and models in geography – quantitative revaluation. C) Paradigms & Philosophy in Geography	15

Reference Books

Sr. No.	Name of Books
1	Abler, Ronald; Adams, Johan, S. Gould, Pater, Spatial Organization; The Geographer's View of the World, Prentice Hall, N. J. 1971.
2	Ali, S.M. The Geography of Puranas, Peoples Publishing House, Delhi 1966
3	Amedeo, Douglas: An Introduction to Scientific Reasoning in Geography, John Wiley, U.S.A. 1971.
4	Dikshit, R.D. (ed) The Art & Science of Geography-Integrated Readings, Prentice Hall of India, New Delhi, 1994
5	Hartshorne, R.: Perspectives on Nature of Geography, Rand MC Nally & Co. 1959.
6	Husain, M: Evolution of Geographic Thought Rawat Pub. Jaipur, 1984
7	Johnston, R.J. Philosophy and Human Geography Edward Arnold London, 1983
8	Johnston, R.J. The Future of Geography Methoun, London, 1988
9	Minshull, R. The Changing Nature of Geography, Hutchinson University Library, London, 1970.

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Semester – IV

Sub – Geography Paper No. XV

Name of the Paper – Political Geography

Code: HCT 4.3

Credit 04

Total Marks: - 100

Total Lectures: - 60

Objectives: -

1. To understand the basic concepts in political geography.
2. To enhance awareness of Multi-dimensional nature of geo-political space.
3. To make acquaint the students with nature of Geographical factors influencing the geo-political situations in India and world.

Course Contents

Unit No.	Sub Units	No. of Lectures
I	Political Geography: Definition, Nature and Scope of Political Geography, Approaches of the study Political Geography, Recent trends in political geography, Geographic elements and the state: physical, human and economic elements, Political Geography and environment interface.	15
II	Themes in Political Geography: State and nation, nation-state Nationalism, nation building, Frontiers and Boundaries, Capital-Classification, functions & world power perspectives on one core periphery.	15
III	Global Strategic Models(Theory of Heartland), Spykman and Mahans sea power concept, its relevance to contemporary, world situation, Geopolitical significance of Indian ocean, Political Geography of SAARC region, south-east Asia, west Asia.	15
IV	Political geography of contemporary-India with special reference to: the changing Political map of India. Unity-diversity, central and centrifugal forces, Stability and instability, Inter-state issues (like water disputes, reparion claims) and conflicts resolutions, Insurgency in border state, emergence of new states, federal India- Unity in diversity.	15

Reference Books

Sr. No.	Name of Books
1	Bhagwati, J. N. (Ed) New International Economic Order – The North –South Debate. M.I.T. Press, London, 1976.
2	Dikshit, R.D. Political Geography: A Contemporary Perspective, Tata McGraw-Hill Publishing Company. New Delhi, 1982
3	Glassner M.I. Political Geography, John Wiley, New York, 1993
4	Panikkar, K.M. Geographical factors in Indian History. Bharatiya Vidya Bhavan, Bombay, 1956
5	Pounds N.T. Political Geography McGraw Hill, New York, 1972
6	Prescott, J.R.V. Political Geography Methouen & Co. London, 1972
7	Schwartzberg, J.E. A Historical Atlas of South Asia, University of Chicago Press, U.S.A. 1993.
8	Short J. R. An Introduction to Political Geography, Routledge and Kegan Paul, London, 1982
9	Taylor P. J. (Ed), Political Geography of the 20th Century – A Global Analysis, New York 1993.
10	Taylor, Peter: Political Geography, Longman, London, 1985.
11	William C.H. (Ed), Political Geography of the New World Order Halsted Ben, New York, 1993.

Pedagogy: -

- Fieldwork to understand the political/administrative boundary configurations and people problems and perceptions.
- Consult political maps (Large and small scale)
- Atlases and archival records.
- Collect relevant newspapers items for group discussion.
- Prepare pin-up board for display of important events of geopolitical nature.

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Class – M.A./M.Sc. – II

Semester – IV

Sub – Geography Paper No. XV

Name of the Paper – Geography of Tourism

Code: SCT 4.1

Credit 04

Total Marks: - 100

Total Lectures: - 60

Objective: -

- 1) Acquiring the knowledge of different Tourist places in the World.
- 2) To understand emerging developing tourism industry.
- 3) To understand the scope and role of tourism in World as well as Indian Economy.
- 4) To familiarize students with tourism industry.
- 5) Encouraging the students to involve in tourism industry.

Course contents

Unit No.	Sub Units	No. of Lectures
I	Basics of Tourism; Definition of tourism; Factors influencing on tourism: Types of tourism-cultural, coastal, Concept of Agro-Tourism and Pro-Poor Tourism, elements of tourism as an industry.	15
II	Indian Tourism: State wise regional dimensions of tourist attractions; promotion of tourism.(Roll of Center and State) Resources & growth of tourism, tourism policies in India. .Roll of Infrastructure and support system- accommodation and supplementary accommodation; other facilities and amenities; Tourism circuits- short and longer detraction – Agencies and intermediacies.	15
III	Impacts of tourism: Physical, economic and social and perceptual; positive and negative impacts;; Globalization and tourism.- Role of foreign capital and impact of globalization on tourism. Impact of tourism on Indian Economy	15
IV	Tourism in the State of Maharashtra: Geographical, historical and cultural Factors influencing tourism. Types of tourism, Impact of tourism on environment; Physical and cultural Any one Project report on relevant topic such as impact of Tourism on Drought Prone Area Development, Rural Tourism, Agro-Tourism, lakes, historical, cultural centers & beaches in the State of Maharashtra.	15

Reference Books

Sr. No.	Name of Book
1	Bhatia A.K.: <u>Tourism Development Principles and Practices</u> ; Sterling Publishers, New Delhi 1996.
2	Bhatiya, A.K. <u>International Tourism – Fundamentals and Practices</u> ; Sterling New Delhi (1991).
3	Chandra R.H.: <u>Hill Tourism Planning and Development</u> Kanishka publishers; New Delhi – 1998.
4	Kaul R.K. <u>Dynamics of Tourism & Recreation Inter-India</u> New Delhi 1985.
5	Kaul J: <u>Himalayan Pilgrimages & New Tourism</u> ; Himalayan Books, New Delhi 1985.
6	Lea. J.: <u>Tourism and Development in the Third World</u> , Routledge, London 1988.
7	Milton D: <u>Geography of World Tourism</u> Prentice Hall, New York 1993.
8	Pearce D.G.: <u>Tourism To-day A Geographical Analysis</u> , Harlow, Longman, 1987.
9	Robinson, H. A.: <u>Geography of Tourism</u> , Macdonald and Evans, London, 1996.
10	Sinha P.C. (ed): <u>Tourism Impact Assessment</u> , Anmol Publishers, New Delhi, 1998.

Pedagogy: -

- Students may be encouraged to gain first hand knowledge from field excursions. An assignment may be given to the students in one of the followings.
 - a) Visit to a tourist centre and talk to some tourists and to write a report.
 - b) Collect the tourist pamphlets and maps from tourism-promotion agencies and to make a review on contents.
 - c) Visit to a tourist place and to list and map the work generation and problems and to suggest remedial measures.
 - d) Study tourism development policy and plans of government of India and the states with which the students is familiar and provide a geographers view point.
 - e) Visit to Ajanta/Ellora/Pandharpur/Tuljapur/Akkalkot / Beaches etc.

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Class – M.A./M.Sc. – II

Semester – IV

Sub – Geography Paper No. XVI

Name of the Paper – Geography of Manufacturing

Code: SCT 4.2

Credit 04

Total Marks: - 100

Total Lectures: - 60

Objective: -

1. To introduce the nature, development and significance of manufacturing and its link with the world economy.
2. To understand the location of major manufacturing activities with the support of various industrial location theories and models.
3. To discuss problems and impact of manufacturing industries with respect to relocation environmental pollution and occupational health and industrial hazard.

Course contents

Unit No.	Sub Units	No. of Lectures
I	1) Meaning, Nature, Scope and Recent developments of Manufacturing, 2) Factors of localization of manufacturing industries, 3) Inter-relationship between the manufacturing and economic development.	15
II	1) Theories and models of industrial location:- (a) A. Weber, (b) A. Losch; Modern refinements to Least cost-theory, 2) Critical review and application of industrial location theories, 3) Methods of measuring the spatial distribution of manufacturing industries:- (a) Standard Industrial classification, (b) Neo-classical theory.	15
III	1) Distribution and spatial pattern of manufacturing industries: (a) Iron & steel, (b) Textiles, (c) Chemicals, (d) Automobiles, (e) Hardware & software- industries, with special references to U.S.A., Japan, U.K. & India, 2) Methods of delineating manufacturing regions, 3) Major manufacturing regions of the world.	15
IV	1) Environmental degradation caused by manufacturing industries: (a) Industrial Hazards (b) Occupation and health, 2) Impact of manufacturing industries on economic development in India. 3) Effects of Privatization, Liberalization and Globalization on Indian Industries, 4) Changing Industrial Policy in India.	15

Reference Books

Sr. No.	Name of Books
1	Alexander, J.W.: Economic Geography, Prentice Hall, Englewood Cliffs, 1988.
2	Alexanderson, C: Geography of Manufacturing, Prentice Hall, Bombay, 1967.
3	Hoover, E,M.- The location and space economy, McGraw Hill, New York 1948.
4	Isard, W.: Methods of Regional Analysis, The Technology Press of M.I.T. & John Wiley & Sons, New York 1956.
5	Miller, E. A., Geography of Manufacturing, Prentice Hall, Englewood Cliffs, New Jersey. 1962.
6	Weber, Alfred: Theory of Location of Industries, Chicago University Press, Chicago, 1957.

Pedagogy: -

- The teachers should take the students to neighboring industrial area and appraise them the functioning of various industries, difficulties and environmental problems of industries.

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Class – M.A./M.Sc. – II

Semester – IV

Sub – Geography (Practical Paper No. XIII)

Name of the Paper – Introduction to Remote sensing and GIS

Code: HCP4.1

Credit 02

Total Marks: - 50

Total Lectures: - 45

Objectives:-

- 1) Make students familiar with concept of Remote Sensing and its use in present Geographic studies.
- 2) To give detailed knowledge about Aerial photography.
- 3) Make students familiar with concept of Geographical Information System.

Course contents

Unit No.	Description	No. of Lectures
I	Remote Sensing:-1.Concept of Remote Sensing, 2.Advantages and limitations of Remote Sensing, 3.Application of Remote Sensing in Geography, 4. Types of Platform and Sensors, 5.Elements of Aerial Photo interpretation	25
II	Geographic Information System: (a) Definition, (b) Purpose, (c) Advantages and disadvantages, (d) Data Structure-Raster and Vector, (e) Components of GIS- Data input and Data Management	20

Reference Books

Sr. No.	Name of Books
1	Barrett E.C. and L.F. Curtis (1992): <u>Fundamentals of remote sensing and air photo interpretation</u> – Mcmillon, New York
2	Curran Paul. J. (1985): <u>Introduction of remotes sensing</u> , londman, London.
3	Comphehl J. (1989): <u>Introduction to remote sensing</u> , Fuildord, New York.
4	Lillesand I. M. and kiefer R. W. (1979): <u>Remote sensing and image interpretation</u> , John Willey & Sons New York
5	Leuder D.R. (1959): <u>Areal Photographic interpretation</u> , Mc grew Hill Book Company, New York.
6	Saini R. R. Kalwar S. C. (1991): <u>Remote sensing in geography</u> , pointer Publishers, Jaipur.
7	Sabins F. F. Jour (1987): <u>Remote sensing principal of interpretation</u> , (II edition) W.H. Freeman and Company, New York.
8	Ian, Haywood & others (2006): <u>Geographical Information System</u> , pearson Education, Inc., Delhi.
9	Jamwal, Anil K. (2008): <u>Geographical Information System</u> , JnanadaPrakashan, New Delhi.

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Class – M.A./M.Sc. – II

Semester – IV

Sub – Geography (Practical Paper No. XIV)

Name of the Paper – Application of Remote Sensing

Code: HCP4.2

Credit 02

Total Marks: - 50

Total Lectures: - 45

Objectives:-

- 1) Make students familiar with concept of Remote Sensing and its use in present Geographic studies.
- 2) To give detailed knowledge about Aerial photography.
- 3) Make students familiar with concept of Geographical Information System.

Sr. No.	Course contents	Lectures
1	Indexing of aerial photographs	02
2	Tracing with naked eyes.	03
3	Photogrammetry:- a) Determination of scale by various methods, b) Determination of height of object, c) Relief displacement and height determination, d) Introduction to parallax, parallax measurement and height determination, e) Determination of overlap. Determination of photo coverage area and cost of photographs.	20
4	Interpretation and mapping of aerial photographs:- a) Land use and land cover, b) Relief and landforms, c) Significance of drainage, d) Cultural landscape mapping, e) Rock types lineament and structure	15
5	Visual interpretation of satellite image:- a) Landuse, b) Landforms	05

Reference Books

Sr. No.	Name of Books
1	Barrett E.C. and L.F. Curtis (1992): <u>Fundamentals of remote sensing and air photo interpretation</u> – Mcmillon, New York
2	Curran Paul. J. (1985): <u>Introduction of remotes sensing</u> , londman, London.
3	Comphell J. (1989): <u>Introduction to remote sensing</u> , Fuildord, New York.
4	Lillesand I. M. and kiefer R. W. (1979): <u>Remote sensing and image interpretation</u> , John Willey & Sons New York
5	Leuder D.R. (1959): <u>Areal Photographic interpretation</u> , Mc grew Hill Book Company, New York.
6	Saini R. R. Kalwar S. C. (1991): <u>Remote sensing in geography</u> , pointer Publishers, Jaipur.
7	Sabins F. F. Jour (1987): <u>Remote sensing principal of interpretation</u> , (II edition) W.H. Freeman and Company, New York.
8	Ian, Haywood & others (2006): <u>Geographical Information System</u> , pearson Education, Inc., Delhi.
9	Jamwal, Anil K. (2008): <u>Geographical Information System</u> , JnanadaPrakashan, New Delhi.

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Class – M.A./M.Sc. – II

Semester – IV

Sub – Geography (Practical Paper No. XV)

Name of the Paper – Research Methodology and Project Report

Code: HCP 4.3(MP)

Credit 04

Total Marks: - 100

Total Lectures: - 90

Section I: Research Methodology

Unit No.	Description	Lectures
I	Significance of fieldwork in geography. Types of fieldworks (Macro, Meso and Micro), Importance of data, Types of data, methods of data collection, presentation and Interpretation of data.	40
II	Importance of Sampling in Research, Types of Sampling methods, Format of project report, preliminary section, the text and reference Section, Style of writing, quotation, footnotes, reference and bibliography, figures and tables.	60

Section II: Project Report

Unit No.	Description	Lectures
I	The students individually or a batches of not exceeding 15 are required to select a problem for the project report. They are expected to carry out field work to generate primary data regarding the problem. By analyzing the data so evolved students should prepare a report and submit it in office for final examination and viva-voce	80

Reference Books

Sr. No.	Name of Books
1	Johnes P. A.: <u>Field work in Geography</u> , – Longman
2	Ahuja Ram, – <u>Research Method</u>
3	Kothari C. R. (1996): <u>Research Methodology</u> , – VishwasPrakashan, New Delhi
4	Misra R. P. (1991): <u>Research Methodology in Geography</u> , Concept publication New Delhi
5	Archet J. E. Dalton T. H. (1968): <u>The field work in geography</u> , Batsford Ltd., London.
6	HamingLioyed (1975): <u>Scientific Geographic Research</u> , W C Brow Company U.S.A.
7	Borase: <u>An Introduction of Research Method</u> , (2005)
8	Hans Raj (1988): <u>Theory and Practice in Social Research</u> , Surjeet Publication, 7-K, Kolhapur