

NORTH MAHARASHTRA UNIVERSITY, JALGAON
NEW SYLLABI OF
M.A. /M.Sc. GEOGRAPHY
W.E.F. June 2017

SEMESTER - Ist

Gg. 111: Principles of Economic Geography

Gg. 112: Principles of Population and Settlement Geography

Gg. 113- Principles of Climatology

Gg. 114 - Principles of Geomorphology

Gg. 115: Practical in Geography

SEMESTER – IInd

Gg. 211: Geographical Thoughts

Gg. 212: Social and Cultural Geography

Gg. 213: Remote Sensing

Gg. 214: Geo-Statistical Methods

*Gg. 215: Practical of Computerize Data Analysis Techniques In
Geography*

New Syllabus of M.A. /M. Sc. Geography
SEMESTER – I & II
(With Effect From June 2017)

OBJECTIVES

Geography is interdisciplinary subject having the constant status in all disciplines and Faculties. This subject is learn not only in Science, Commerce and Arts faculties but also in Engineering, IT, Survey of India, Tourist Industries, Military etc. In recent and advanced days traditional courses of geography could not provide the job opportunities to geography Students. Considering this back ground scenario, we the senior staff members and PG teachers of NMU have decided to introduce the courses having impression in the job market. To introduce P.G. courses following objectives are taken in to consideration:

- 1) **Gg 111: Principles of Economic Geography**
- 2) **Gg 112: Principles of Population and Settlement Geography**
- 3) **Gg 113: Principles of Climatology**
- 4) **Gg 114 :Principles of Geomorphology**
- 5) **Gg 115: Practical in Geography**

Economic, Population and Settlement, Climatology, Geomorphology and Practical with their relevance are the main Branches of geography. The main objective of these courses is that students should acquaint with the basic knowledge of these courses. It is learn that in the NET/SET, MPSC/UPSC and other competitive examinations, most of the questions are related to above Courses. Therefore, senior PG teachers of NMU have decided to introduce basic principles of above courses and practical course.

- 1) **Gg. 211: Geographical Thoughts**
- 2) **Gg. 212: Social and Cultural Geography**
- 3) **Gg. 213: Remote Sensing**
- 4) **Gg. 214: Geo-Statistical Methods**
- 5) **Gg. 215: Practical Of Computerize Data Analysis Techniques in Human Geography**

In second semester students become ready to face competitive examinations. Considering the knowledge level of students, teachers should feed them with advance Techniques such as Remote Sensing, and Geo-statistical methods. Geographical Thoughts and Social and Cultural Geography, these courses have given more importance in the examination of NET/SET and MPSC/UPSC. Because of these Courses the proportion NET/SET qualified students will be increased. In the second Semester, we the teachers of geography have modified the structure of course by considering the demand requirements from different IT companies. This practical course is very useful for the researcher in geography subject. Computer knowledge is the prime demand of advance and challenges. Considering this Background, we are introducing real application of computerized data analysis and Remote Sensing Techniques in the syllabus of Post Graduate.

Submitted by

Mr. N. S. Kolhe

Dr.S.A.Wagh

Convenor

Coordinator

M.A/M.Sc. Geography-I SYLLABUS Reframing Workshop

A.S.C. College, Chopda

25th February, 2017

**EQUIVALENCE OF SYLLABUS IN M.A/M.Sc. GEOGRAPHY – I
WITH EFFECT FROM JUNE-2017**

Semester – Ist

Old Syllabus (June 2013)		Equivalence : New Syllabus (June 2017)	
Course Code	Subject	Course Code	Subject
Gg. 101	Principles of Economic Geography	Gg. 111	Principles of Economic Geography
Gg. 102	Principles of Population & Settlement Geography	Gg. 112	Principles of Population & Settlement Geography
Gg. 103	Principles of Climatology	Gg. 113	Principles of Climatology
Gg. 104	Principles of Geomorphology	Gg. 114	Principles of Geomorphology
Gg. 105	Practical of Computerized Data Analysis Techniques in Human Geography	Gg. 115	Practical in Geography

Semester – IInd

Old Syllabus (June 2013)		Equivalence : New Syllabus (June 2017)	
Course Code	Subject	Course Code	Subject
Gg. 201	Geographical Thoughts	Gg. 211	Geographical Thoughts
Gg. 202	Social and Cultural Geography	Gg. 212	Social and Cultural Geography
Gg. 203	A Remote Sensing	Gg. 213	Remote Sensing
	B Geoinformatics - I		
Gg. 204	Geo-Statistical Methods	Gg. 214	Geo-Statistical Methods
Gg. 205	Practical – Cartographic Techniques with the help of GIS & Excursion Report	Gg. 215	Practical of Computerize Data Analysis Techniques In Geography

➤ **Syllabus Pattern for The all Courses (60 : 40)**

University Assessment (UA) – External Marks	60
College Assessment (CA) – Internal Marks	40
Total Marks	100

➤ **Question Paper Pattern for Theory Courses-**

Write any Five questions out of Seven. (Total Marks : 60)

Q.1 – Broad Question_____ 12 Marks

Q.2 – Broad Question_____ 12 Marks

Q.3 – Broad Question_____ 12 Marks

Q.4 – Broad Question_____ 12 Marks

Q.5 – Broad Question_____ 12 Marks

Q.6 – Broad Question_____ 12 Marks

Q.7 – Write Short Notes on any two out of three__ 12 Marks

A)

B)

C)

**NEW SYLLABUS OF M.A. /M.Sc. GEOGRAPHY
SEMESTER - I**

Gg. 111- Principles of Economic Geography

(With Effect from June, 2017)

Unit No.	Unit	Subunit	Periods
I	Economic Geography : Introduction	A) Definition, Nature and Scope B) Approaches to Economic Geography C) Recent trends in Economic Geography	06
II	Concept of Resources and Economies	A) Meaning of the term 'Resource' B) Classification of Resource C) Approaches to Resource Utilization i) Environmental Approach ii) Economic Approach D) Significance of natural and human resources in Economic development	08
III	Models of Economic Development	A) Rostow's Model B) Myrdal's Model C) Weber's Model of industrial location	10
IV	Economic Environment and Economic Development in the World	A) Measures of Economic Development i) Economic measures of Development ii) Social Measures of Development B) Problems of Economic Development C) Economic Development in developed and Underdeveloped countries	10
V	Economic Regions	A) Definition and Concept of Economic Regions B) Stages in the development of Economic Regions C) Types of Economic Regions i) Small Economic Region ii) The Market Region iii) Natural Resource Region iv) Institutional Region v) Economic Development Region	10
VI	International Trade	A) Definition of international trade B) Role of international trade in World Economic Growth C) Factors Promoting international trade D) Problems and prospects E) Ricardo's Classical Theory	08
VII	Economic Development in India	A) Natural and Cultural factors Influencing economic development in India B) Impact of Green Revolution on economic Development in India C) Impact of Globalization on economic Development of India	08

Weightage of Marks: Equal Marks to all Topics

Reference Books:

- 1) Alexander, J. W. (1977) : 'Economic Geography', Prentice Hall of India Pvt. Ltd., New Delhi.
- 2) Chorley, R. J. and Haggett, P (1970) : 'Socio Economic Models in Geography', Methuen.
- 3) H. M. Saxena (2013) : 'Economic Geography', Rawat publication, Jaipur.
- 4) Mitra, A (2002) : 'Resource Studies', Sreedhar publishers, Kolkata.
- 5) Kanan Chatterjee (2015) : 'Basics of Economic Geography', Concept publishing Company Pvt. Ltd., New Delhi.
- 6) Ray, P. k. (1997) : 'Economic Geography', New Central Book Agency (P) Ltd., Calcutta.
- 7) Shelar S. K. (2013) : 'Principles of Economic Geography' Chandralok Prakashan, Kanpur.
- 8) Garnier, B. J. and Delobez, A (1979), : 'Geography of Marketing', Longman.

**NEW SYLLABUS OF M.A. /M.Sc. GEOGRAPHY
SEMESTER - I**

Gg. 112 - Principles of Population and Settlement Geography

(With Effect from June, 2017)

Unit .No	Unit	Sub Unit	Periods
I	Nature and Scope of Population Geography	A) i) Review of definitions ii) Scope of the study iii) Nature of the study iv) Evolution of Population Geography v) Significance of the study of Population Geography B) Approaches to the Population Geography	08
II	Sources of Population Data and History of World Population	A) Various Sources: i) The Census: Nature, Characteristics, Merits, and Demerits ii) Registration and other Population Data Sources. B) History of World Population Growth: i) Population of the Ancient World ii) Trends of Population Growth: Ancient to modern times: a) Growth of Population Before Industrial Revolution. b) Growth of Population After Industrial Revolution.	10
III	Concepts Related to Population	Concepts, Types, Definition, Characteristics and Influencing Factors: (a) Density. (b) Over, Optimum and Under Population. (c) Fertility and Mortality. (d) Natural and Temporal Growth Rates. (e) Population Projections	08
IV	Theories of Population	(a) Demographic Transition Model. (b) Thomas Robert Malthus's Theory. (c) Karl Marx's Theory.	08

V	Principles of Settlement Geography	<p>A) Definition of Rural and Urban Settlements.</p> <p>B) Defining Characteristics of Rural and Urban Settlements according to Indian Census.</p> <p>C) Nature of the Study.</p> <p>D) Scope of the Study.</p> <p>E) Evolution of Settlement Geography.</p> <p>F) Approaches to the Settlement Geography</p>	08
VI	Settlement types and Patterns.	<p>A) Factors affecting Settlement types and Patterns.</p> <p>B) Settlement Types</p> <p>i) According to Size of Population: Rural & Urban Settlements.</p> <p>ii) Rural Settlement Types According to:</p> <p>a) Site and Situation.</p> <p>b) Function.</p> <p>iii) Factors leading to dispersion and nucleation of Rural Settlements.</p> <p>iv) Various patterns of settlement.</p> <p>v) Types of Urban Settlements According to Site and Situation, Functions.</p>	10
VII	Concepts and Theories related to Settlement Geography	<p>A) Concepts:</p> <p>i) Nodality</p> <p>ii) Centrality</p> <p>iii) Rank Size Rule</p> <p>iv) Range and threshold</p> <p>v) Rural Service Center</p> <p>B) Theories:</p> <p>i) W.Christaller's Central Place Theory</p> <p>ii) Gravity Model</p> <p>iii) Ullman's Model</p>	08

Weightage of Marks: Equal Marks to all Topics

Reference Books:-

1. S.K. Shelar : "Urban Settlement", Chandralok Prakashan, Kanpur.
2. Gornior B. J.(1966): "Geography of Population", Longman Group Ltd., London.
3. Chandana R.C.(1986): "A Geography of Population, Concepts Determinations and Patterns", Kalyani Publishers, New Delhi.
4. Clarke, J. I.(1972): "Population Geography", (Second edition) Pergamon Press Ltd.,

Oretord.

5. M.G.Bradford and W.A.: "Human Geography: Theories and Their Applications", Oxford University Press.
6. L.S.Bolurne R. Sinclais(1984): "Urbanization and Settlement Systems International Perspectives", Oxford University Press.
7. F.S.Hudson (1977): "Geography of Rural Settlement", Mac Donold and Evans
- 8 R.B.Mandal (1979):"Introduction to Rural Settlement", Concept Publishing Company, New Delhi.
9. R.P.Mishra, K.V.Sundaram, Sudesh Nagia: "Population Geography", Heritage Publishing, New Delhi.
- 10.Charles Whyhne Hammonnd (1979): "Elements of Human Geography" George Allen and Unwin, London .
- 11 H. Robinson (1976) : "Human Geography", Mac.Donold and Evans
- 12 Hornby, Jones (1983) : "An Introduction to Population Geography", Cambridge University Press, Cambridge
13. Huntington, Shaw (1970):"Principles of Human Geography, John Wiley & Sons, INC, New York
14. Clarke, J. I. (1977): "Population Geography and Developing Countries",Robert Maxwell, M C.
- 15 Majid Hussain (1999) : "Human Geography", Rawat Publications Pvt. Ltd., New Delhi
- 16 Paul L. Knox and Sallie A. Marston (1999) : "Human Geography - Places and Regions in Global Context", Prentice-Hall, New Jersey 16.
- 17 Chandana, R. C. and Janjit, S. S. (1980): "Introduction to Population Geography", Kalyani Publishers, New Delhi
- 18 Tripathi, R. K. (2000) : "Population Geography", Commonwealth Publishers, New Delhi
- 19 Dubey, R. M. (1981) : "Population Dynamics in India", Chugh and Publications, Allahabad
20. Sawant, S.B. and Athavale, A.S.(1994):"Population Geography", Mehta Publishing House, Pune

**NEW SYLLABUS OF M.A./M.Sc. GEOGRAPHY
SEMESTER - I**

Gg 113: Principles of Climatology

(With Effect from June, 2017)

Objectives:

- To acquaint the students with basic knowledge of atmosphere, weather and climate
- To know the fundamental concepts of climatology
- To understand various weather phenomena
- To identify climatic differentiation on the earth
- To acquire the knowledge of weather forecasting

Unit. No.	Topic	Sub-topic	Periods
I	Introduction	A) Weather and Climate i) Meaning and concept ii) Elements iii) Role of Climate in human life B) Definition, Nature and Scope of Climatology C) Sub-divisions of Climatology (Physical, Regional, Applied) D) Development of Modern Climatology E) Atmosphere – Structure and composition	10
II	Insolation and Heat Budget	A) Insolation i) Meaning and definition of Insolation, Solar constant and Albedo of the earth ii) Factors affecting the distribution of Insolation iii) Effects of atmosphere (Scattering, Diffusion, Reflecting and Absorption) B) Heat budget of the Earth and Atmosphere	08
III	Temperature	A) Heating and Cooling of Atmosphere – i) Conduction ii) Radiation iii) Convection B) Distribution of Temperature i) Factors affecting the distribution ii) Horizontal and Vertical distribution of Temperature iii) Inversion of Temperature	07
IV	Atmospheric Pressure and Winds	A) Atmospheric Pressure i) Formation of pressure belts ii) Shifting of pressure belts and their effects B) Winds i) Pressure gradient force, Coriolis force, Geostrophic winds ii) Types of Winds	07

		a) Planetary winds b) Local winds (Land and Sea breezes) c) Seasonal winds - monsoon	
V	Humidity and Precipitation	A) Humidity measurements (types) B) Process of evaporation, condensation & precipitation C) Forms of precipitation - mist, fog, rain, snow, hail, sleet, etc. D) Types of rainfall - convectional, orographic and cyclonic	08
VI	Airmasses and Atmospheric Disturbances	A) Airmasses i) Definition, source regions ii) Classification iii) Modifications of Airmasses (mechanical and thermodynamic) B) Fronts i) Definition of Front and Frontal zone ii) Types of Fronts C) Atmospheric Disturbances i) Cyclones and Anticyclones (Tropical & Temperate) ii) Thunderstorms – origin, structure & characteristics iii) Jet Streams	12
VII	Climatic Classification	A) Koppen's classification (basis, types, merits and demerits) B) Thornthwait's classification (1931 & 1948) (basis, types, merits and demerits)	08

Weightage of Marks: Equal Marks to all Topics

Reference Books:

1. Barura, A.K. (2005), "Climatology", Dominant Publishers & Distributors, New Delhi.
2. Barry, R.G. and Chorley R.J., "Atmosphere, Weather and Climate"
3. Byers, R.H. (1974), "General Meteorology", McGraw Hill, New York.
4. Critchfield, H.J. (1993), "General Climatology", Prentice Hall, New Delhi, India
5. Critchfield, H.J. (2004) : Principles of Climatology; Prentice Hall, London.
6. Das, P.K (1991), "The Monsoon" , National Book Trust, New Delhi.
7. K. Siddhartha (2011), "Atmosphere Weather & Climate – A text book of Climatology", Kisalaya Publications Pvt. Ltd., New Delhi.
8. Lal, D.S.(2011), "Climatology", Sharda Pustak Bhawan, Allahabad.

9. Lutgens, F.K. and Tarbuck, E.J.(1995), "The Atmosphere:An Introduction to Meteorology", Prentice Hall, New Jersey.
 10. Mather, J. R. (1974): Climatology: Fundamentals and Applications, Mc Graw Hill, New York.
 11. Pettersons (1969), "Introduction to Meteorology", McGraw Hill, New York.
 12. Quzi, S.A. (2009), "Principles of Physical Geography", APH Publishing Corporation, New Delhi- 110002.
 13. Rama Shastri, A.A.: 'Weather and Weather forecast', IMD.
 14. Savindra Singh (2005) "Climatology" Prayag Pustak Bhavan, Allahabad.
 15. Stringer, E.T. (1982), "Foundation of Climatology" Surjeet Publications, Delhi
- Trewartha, G.T. (1980), "An Introduction to Weather and Climate", McGraw Hill, New York.

**NEW SYLLABUS OF M.A./M.Sc. GEOGRAPHY
SEMESTER - I**

Gg. 114: Principles of Geomorphology

(With effect from June 2017)

Unit No.	Unit	Sub Unit	Periods
I	Introduction	A) Definition, Nature and Scope B) Significance to study of Geomorphology C) Fundamental Concepts i) Uniformitarianism ii) Geological time Scale iii) Morphogenetic Regions	08
II	Origin and Evolution of Earth's Primary Relief	A) Continental Drift Theory i) Basic Assumptions ii) Theory iii) Supporting Evidences iv) Criticism B) Sea Floor Spreading Theory i) Basic Concepts ii) Theory iii) Supporting Evidences C) Plate Tectonic theory i) Basic Concepts: a) Lithosphere b) Asthenosphere ii) Lithospheric Plates and Boundaries iii) Global System of Lithospheric Plates iv) Effects of Plate Movements: a) Subduction Tectonics b) Orogens and Collisions c) Continental Rupture and New Ocean Basins d) Causes of Plate Motion	12
III	Exogenous Processes	A) Weathering: a) Definition b) Factors c) Types d) Products B) Mass Wasting: a) Definition b) Factors c) Types d) Examples	08
IV	Slopes	A) Elements of Slopes: a) Convex Slope b) Free Face Slope c) Constant or Talus Slope d) Concave Slope B) Development of Slope Profile: a) W. Penck's views	08

		b) Allen Wood's views	
V	Davision Cylcle of Erosion	A) Characteristics of Rivers B) Theory C) Concepts D) Criticism E) Interruption	06
VI	Fluvial Landforms	A) Characteristics of Rivers B) Fluvial Erosion: a) Process of Erosion b) Features of Erosion C) Transportation by Rivers D) Deposition by Rivers: a) Process by Deposition b) Features of Deposition	10
VII	Aeolian Landforms	A) Wind Erosion: a) Process of Erosion b) Features of Erosion B) Wind Deposition: a) Process by Deposition b) Features of Deposition	08

Weightage of Marks: Equal Marks to all Topics

Books:

1. Thornbury, W.D. (1960) Principles of Geomorphology", John Wiley and Sons, New York.
2. Chorley R. J., Schumm, S. A. and sugen E.E. (1984): Geomorphology, Methuen, London.
3. Kale V. S. and gupta, A (2001); introduction to Geomorphology, Orient Longman, Calcutta.
4. Savindra Sings (2002): Geomorphology, Prayag Pustak Bhavan, Allahabad.
5. Spark B.W. (1972) Geomorphology, Longman, New York.
6. Steers A. (1958) The Unstable Earth, Methuen, London.
7. Ollier, C. D. (1981) Tectonics and Landforms, Longman, London.
8. Strahler A. H. and Strahler, A.N. (1998) Introducing Physical Geography, John Wiley and Sons, Inc. New York.
9. Wooldridge and Morgan: Geomorphology, Longman, New York.
10. Holmes; Physical Geology.
11. Fairbridge, R.W. (1968) Encyclopedia of Geomorphology, Reinholdts, New York.
12. K. Siddhartha (2001) : the Eart's Dynamic Surface, Kisalaya Publications Pvt. Ltd.
E Mail:sahasini@bol.net.in

**NEW SYLLABUS OF M.A./M.Sc. GEOGRAPHY
SEMESTER - I**

Gg. 115: PRACTICAL IN GEOGRAPHY

(With effect from June 2017)

(10 Students per batch per week)

Unit No	Unit	Sub Unit	Periods
I	Population Geography	<p>A) Density: i) Arithmetic Density of Population. ii) Economic Density of Population. iii) Agricultural Density of Population.</p> <p>B) Measures: i) Fertility Rates. ii) Birth Rates: Crude & Age Specific. iii) Mortality Rate. iv) Child-Women Ratio.</p> <p>C) Sex Ratio: i) Sex Ratio ii) Age- sex pyramids.</p>	12
II	Settlement Geography	<p>A) Methods used to calculate degree of dispersion. i) Bernhard's method. ii) Demangeon method.</p> <p>B) Nearest Neighbour analysis- Clerk and Evan's method.</p> <p>C) Rank size rule.</p>	10
III	Agriculture Geography	<p>A) Crop Concentration by Bhatia. B) Crop Diversification by Bhatia. C) Crop Combination by Weaver's. D) Measurement of Agricultural efficiency by Bhatia's Method.</p>	12
IV	Transportation Geography	<p>A) Graph theoretic measures of transport Network, Ratio Measures. i) Alpha. ii) Beta. iii) Gamma. iv) Associated Number. v) Koing Index.</p>	06
V	Industrial Geography	<p>A) Measurement of Industrial activity. i) Location Quotient. ii) Lorenz curve..</p>	04
VI	Geomorphology	<p>A) Morphometric Analysis Stream ordering- Horton's & strahler's method</p> <p>B) Linear aspects- stream frequency, bifurcation ratio, drainage density</p>	08

		C) Areal aspects- Circularity ratio, D) Geological section -Confirmable series	
VII	Climatology	A) Wind rose – simple and compound B) Hythergraph C) Climograph D) Station Model E) Water Budget	08

Weightage of Marks: Equal Marks to all Topics

Books:

- R.B.Mandal: “Statistic for Geography and Social Science”.
- Monkhouse: “Maps and Diagram”.
- Masjid Husen “:Agricultural Geography”.
- Hudson F.S.(1976): “Geography of Settlement” .
- Yeats, M.H. (1974): “An Introduction to Quantitative Analysis in Human Geography”.
- Sing J. and Dhillon (1984) “Agricultural Geography”.
- Sing R.L. “ Readings in Rural Settlement Geography”.
- Michael E. and E. Hulse: ‘ Transportation Geography’.
- Edward Arnold: “ The Study of Urban Geography”.

Pattern of Question Papers:

- 1) All questions will be compulsory.
- 2) Marks for Viva- voce is -10 marks

**NEW SYLLABUS OF M.A./M.Sc. GEOGRAPHY
SEMESTER - II**

Gg. 211: GEOGRAPHICAL THOUGHTS

(With effect from June 2017)

Unit No.	Unit	Sub Unit	Periods
I	Geographical Thoughts in Ancient Period	A) Greek Contribution B) Roman Contribution:- Strabo, Ptolemy C) Indian Contribution	10
II	Geographical Thoughts in Medieval Period	A) Dark Age in Europe B) Arab Contribution C) Age of Discovery	08
III	Geographical Thoughts in Modern Period	A) German Contribution:- Kant, Humboldt, Ritter, Ratzal. B) French Contribution:- Blache, Brunhes C) American Contribution: - Devis, Semple, Taylor, Hartshorne.	08
IV	Dualism in Geography	A) General (Systematic) Geography versus Regional Geography B) Physical Geography versus Human Geography C) Determinism Geography Versus Possibilism	08
V	Approaches of Geographic Study	A) Systematic Approach B) Regional Approach C) Quantitative Approach D) Behavioral Approach E) Radical Approach	06
VI	Conceptual Development in Geography	A) Concept of Areal Differentiation B) Concept of Region with Classification. C) Spatial Analysis D) Spatial Organization E) Models in Geography F) Remote Sensing & GIS Applications.	08
VII	Recent Trends in Geography	Challenges and Problems in - A) Geomorphology B) Climatology C) Economic Geography D) Population Geography E) Social and Cultural Geography	12

Weightage of Marks: Equal Marks to all Topics

References:-

- 1) Husain Majid (2015 – 6th edition) : Evolution of Geographical Thought, Rawat Publication, Jaipur.
- 2) Harvey M. E. (2016) : Themes in Geographic Thought, Rawat Publication, Jaipur.
- 3) Lalita Rana (2015) : Geographical Thoughts- Systematic Record of Evolution, Concept Publishing Company, New Delhi – 110059.
- 4) Peet R. (2011) : Modern Geographical Thought, Wiley Publishers.
- 5) David Harvey : Explanation in Geography.
- 6) Peter Hagget : Geography, A Modern Synthesis.
- 7) Dickinson R. E. : The Makers of Modern Geography.
- 8) Brain P Fit Gerald : Development in Geographical Method Science in Geography, Oxford University Press.
- 9) Saroj K. Pal : Statistical Techniques – A Basic Approach to Geography, Mc Graw Hill Publishing Co. Ltd.
- 10) Chandna R. C. : Introduction to Population Geography, Rawat Publication, Jaipur.
- 11) Floyd Sabins : Remote Sensing, Principles and Approaches, Freeman and Company, New York.
- 12) George Joseph (2004) : Fundamentals of Remote Sensing, University Press Pvt. Ltd., Hyderabad.
- 13) Kang – Tsung (2002) : Introduction to Geographic Information System, Mc Graw Hill Publishing Co. Ltd.
- 14) Thompson W. S. and Lewis D. T. (1965) : Population Problems, Tata McGraw Hill Publishing Co. Ltd., New Delhi.
- 15) Hart M. G. (1986) : Geomorphology- Pure and Applied, George Allen and Unwin.
- 16) Hindore Oliver : Climatology
- 17) Hartshorn and Alexander (1988) Economic Geography, Prentice Hall, International Inc.
- 18) https://books.google.com.pk/books?id=8DQko5PKaGkC&pg=PR3&source=gbs_selected_pages&cad=2#v=onepage&q&f=false
- 19) <https://www.gisdevelopment.net/download/gps/index.htm>
- 20) <http://www.funrungames.com/navfunpro.php>
- 21) IMD Website

**NEW SYLLABUS OF M.A. /M.Sc. GEOGRAPHY
SEMESTER - II**

Gg. 212: Social and Cultural Geography

(With effect from June 2017)

Unit No.	Unit	Sub Unit	Periods
I	Introduction to Social Geography	A) Definition, nature B) Group structure, group categorization and Different groups in society.	08
II	Social Theories	A) Classical social theory i) Modern Social Theory ii) Post Modern Social Theory iii) Social Structure	08
III	The cultural complex	A) Cultural landscape i) Development of cultural landscape ii) Cultural Regions	08
IV	Tribes	A) Definition, Tribal social formation, B) Nomenclature, Language variation, C) Distribution at state and district level D) Distribution of the tribes i) Gond ii) Naga	08
V	Introduction to cultural Geography	A) Meaning, Themes in cultural geography i) Culture region ii) Formal culture region iii) Functional cultural region iv) Cultural diffusion v) Cultural ecology	10
VI	Cultural system	A) Geography and religion B) Geography and language C) Cultural Nationalism D) Globalization and cultural change	08
VII	Origin and growth of culture	A) Origin - i) Dispersion & diffusion of culture. ii) Cultural Convergence & divergence B) Trends in Culture - Recent trends towards decreasing cultural diversity	10

Weightage of Marks: Equal Marks to all Topic

Books -

- 1) Aijaruddin Ahmad- "Social Geography", Rawat Publication Jaipur, New Delhi.
- 2) Emrys Johns (1975) - "Readings in Social Geography", Oxford University Press.
- 3) Rajit Tirtha : "Geography of India", Eastern Michigan University, U.S.A. & Region.
- 4) Spencer J.E. and W.L. Thomas : "Introducing Cultural Geography"
- 5) Wagner P.L. and Mi Kesell M.W. : "Reading Cultural Geography"
- 6) Majid Husain : "Cultural Geography", Anmol Publication Pvt. Ltd., New Delhi.
- 7) John Emrys : "Regions in Social Geography"
- 8) John Emry and Eyles John : "An Introduction of Social Geography"
- 9) Dr. Jain : "Vishwaka Sanskrutik Bhugol"
- 10) Majid Husain - Social Geography
- 11) Kaushik, Chavan, P.K. Pande - Social Geography

**NEW SYLLABUS OF M.A./M.Sc. GEOGRAPHY
SEMESTER - II**

Gg. 213: REMOTE SENSING

(With effect from June 2017)

Unit No	Unit	Sub Unit	Periods
I	Introduction of Remote Sensing	A) Introduction B) Definitions of Remote Sensing C) Process of Remote Sensing D) Need of Remote Sensing E) Applications of Remote Sensing Techniques	08
II	History of Indian Remote Sensing & Indian Space Program	A) History of IRS Development B) NRSA Organization C) Recent Development of India in Space Technology	08
III	Fundamentals of Remote Sensing	A) Concept of Energy B) Electromagnetic Energy or Radiation C) Properties of Electromagnetic Wave i) Velocity ii) wave length iii) frequency D) Atmospheric Effects: Absorption, Scattering, Refraction, Reflection, Emission and Transmission of Energy. E) Electromagnetic Spectrum.	10
IV	Classification of Remote Sensing	A) Introduction B) Types of Remote Sensing I) Based on Energy Source i) Passive Remote Sensing ii) Active Remote sensing II) Based on Platforms: i) Ground Observation Platform ii) Air Borne Platform iii) Space Borne Platform	08
V	Aerial Photography	A) Introduction to Aerial Photographs B) Types of Aerial Photographs C) Types of Camera D) Types of Film E) Geometry of Aerial Photographs F) Instruments used for the Interpretation of Aerial	10

		Photographs (Parallax bar, Mirror Stereoscope and Pocket Stereoscope)	
VI	Satellite Remote Sensing	A) Orbit of Remote Sensing Satellite i) Geostationary / Geosynchronous, ii) Polar / Sun synchronous B) Scanning Techniques i) Across-Track ii) Along track C) Spectral, Spatial, Radiometric and Temporal Resolution s of Sensors	08
VII	Introduction of GPS	A) Basics and Definitions B) Working principles of GPS C) Segments of GPS D) Applications of GPS in various fields	08

Weightage of Marks: Equal Marks to all Topics

Reference Books

- 1) Agarwal C.S. and Garg P.K. (2002): Text Book on Remote Sensing, Wheeler Publishing, Delhi.
- 2) Basudeb Bhatta (2011): Remote Sensing and GIS, Oxford University Press.
- 3) Chang, Kang-Taung (2000): Introduction to Geographic information System, Tata McGraw Hill.
- 4) H. S. Sharma, R. Ram, Ramaprasad(2006) E. R. Binda Geographical Information System, Global Positioning System and Digital Cartography, Concept Publication Company, New Dehli.
- 5) Haywood, Ian (2000): Geographical Information System, Longman.
- 6) Lillesand, Thomas M. & Kiefer Ralph (2000): Remote Sensing and Image Interpretation, Jonh Willey.
- 7) S. A. Abbasi, K.B. Chari (2005): Applications of GIS and Remote Sensing in Environmental Management, Discovery Publication House, New Dehli.
- 8) Tor Bernhardsen, Asplan Viak, Arendal, Norway (2007): Geographical Information System An Introduction, Jonh Willey.

**NEW SYLLABUS OF M.A./M.Sc. GEOGRAPHY
SEMESTER – II**

Gg 214: GEO-STATISTICAL METHODS

(With effect from June -2017)

Unit No.	Topic	Sub Topic	Periods
I	Introduction to Geo-Statistical Methods	A. Introduction B. Concept, Meaning and Definition C. Major Characteristics of Geo-statistical Methods	08
II	Probability Assessment	A. Probability and Normal Distribution i. Functions of Probability and Normal Distribution Critical Value – Mean Value ii. Z Score = ----- Standard Deviations	08
III	Sampling and Sample Planning in Geo-Sciences	A. Population and Sample B. Types of Sampling i. Simple Random Sampling: Point, Area and Liner Sampling ii. Restricted of Random Sampling: Systematic, Grid and Stratified	10
IV	Parametric Statistics in Geo-science System	A. Sampling Theory and Parametric Statistics B. Null Hypothesis and Significance Level C. Test of Significance between Sample Mean and Population Mean	08
V	Parametric Statistics in Geo-science System (in small size sample)	A. Student's 't' Test B. Importance of 't' Test C. Test of Significance between Sample Mean and Two Independent Samples D. Test of Significance between Sample Mean and Population Mean (When Standard Deviation Unknown) E. 'F' Distribution (Analysis of Variance)	10
VI	Non-parametric Statistics in Geo-science System	A. Chi-Square test –based on even area , uneven area and Contingency Table B. K-S Test -Two Sample	08
VII	Regression Analysis of Geo-Science System	A. Semi-Average Method B. Simple Regression Equation C. Residuals from Regression D. Exponential Regression Equation	08

Weightage of Marks: Equal Marks to all Topics

Reference Books:

1. E.H. Isqaks and R.M. Srivastava (1989), An Introduction to Applied Geo-Statistics, Oxford University Press.
2. R.M. Shrivastwa In Ruhani et.al (1996), Describing Variability using Geo-statistical analysis.
3. M.V.Cromer ,In Ruhani et.al (1998), Geo-statistical for Environment and Geo-Technical Application: A Technology Transformation.
4. C.V. Deitsh (2002) Geo-Statistical Reservoir Modeling, Oxford University Press.
5. Saroj K Pal- Statistics for Geo-Scientist
6. S. Grogry- Statistical methods for Geographer
7. AslamMahmood- Statistical methods in Geographical Studies.
8. AslamMahmood& Prof. Moonis Raja (1977): Statistical Methods in GeographicalStudies.Rajesh Publications, New Delhi.
9. P.S.Gupta (1983) : Practical Statistics, Chand and Company Ltd. Ram Nagar New Delhi.
10. John Silk (1979): Statistical Concepts in Geography, George Allen &Unwin, London.
11. Saroj K Pal (1982): Statistical Techniques, A Basic Approach to Geography, Tata McGraw Hill Publishing Comp. Ltd. New Delhi.
12. Miller J. Taylor(1977): Quantitative Methods in Geography, Houghton Mithu Comp.Bostan.
13. Leslie J. King (1969): Statistical Analysis in Geography, Prentice Hall, INC, Englewood,Clieff
14. ZamirAlvi (1995): Statistical Geography, Methods and Applications, Concept Publ.NewDelhi.
15. R.B.Mandal (1981): Statistics for Geographers & Social Scientists, Rawat Publ. NewDelhi.

**NEW SYLLABUS OF M.A. /M.Sc. GEOGRAPHY
SEMESTER - II**

Gg. 215: Practical of Computerize Data Analysis Techniques In Geography

(With effect from June 2017)

(10 Students per batch per week)

Unit No	Unit	Sub Unit	Periods
I	Introduction to Microsoft Excel work sheet and Presentation Techniques	A) Microsoft Excel: (a) Workbooks & Worksheets. (b) Data Analysis tools and Techniques: i) Advanced Filter Command, ii) IF Condition Command iii) Conditional Formatting iv) By default Insert Function (c) Development of Syntax on Formula Bar i) Mathematical and Statistical Operators ii) Application of Operators in formula development (d) Data Presentation Techniques B) Presentation Techniques: (a) Introduction to M.S. Power Point (b) Preparation of Slides (c) Maps and Graphs import techniques for slide show	06
II	Data Analysis Techniques in Population Geography	D) Density: i) Arithmetic Density of Population ii) Economic Density of Population iii) Agricultural Density of Population iv) Critical Density of Population E) Measures: i) Fertility Rates ii) Birth Rates: Crude & Age Specific iii) Mortality Rate iv) Child-Women Ratio v) Sex Ratio: Sex Ratio	10
III	Data Analysis Techniques in Rural Settlement Geography	A) Dispersion of Rural Settlements: i) Bernhard's method ii) Demangeon method iii) Debouvrie's method	08
IV	Data Analysis Techniques in Urban Geography	A) Growth of Urban Population B) Degree of Urbanization C) Functional Classification of Towns by Thompson D) Centrality Index by Christaller	10

V	Data Analysis Techniques in Agricultural Geography	A) Proportion of Cropped Land B) Crop Concentration by Bhatia C) Crop Diversification by Bhatia D) Crop Combination by Weaver's	08
VI	Data Analysis Techniques in Climatology	A) Intensity of Rainfall B) Presentation of Rainfall and Temperature Data C) Windrose	05
VII	Preparation of Project Report & Excursion Report	A) Project Report I) Each student should select individually any one unit of syllabus to analyze the data. II) Student should prepare at least 10 slides to present analyze techniques and result with the help graphs and charts. III) At the time of examination student should submit the CD of above project in the Department. i) Excursion Report	13

Instructions to Departments:

- 1) All Computers in the Lab. should be individual. (Lan System is not allowed).
- 2) Every students should have separate computer set in the computer Lab.(10 set of Computers for one batch).
- 3) Students will present the census report with the help of Power Point, obviously slide projector is must.

Examination System:

- 1) Data of question Paper will be supplied in the form of C.D.
- 2) Students will solve the questions in separate files of one workbook.
- 3) Examiners will assess the papers on screen by giving the marks to all questions.
- 4) All answer sheets will be loaded in the C.D. by the examiners.

Pattern of Question Papers:

- 3) All questions will be compulsory.
- 4) Data of question paper will be provided by paper setters.
- 5) Assessment of Project Report for 10 marks, Excursion Report-05 marks, viva-voce-05 marks.

Weightage - Equal Marks For Each Topic**Books:**

- R.B.Mandal: "Statistic for Geography and Social Science".
- Monkhouse: "Maps and Diagram".
- Masjid Husen ":Agricultural Geography".
- Hudson F.S.(1976): "Geography of Settlement" .
- Yeats, M.H. (1974): "An Introduction to Quantitative Analysis in Human Geography".
- Sing J. and Dhillon (1984) "Agricultural Geography".
- Sing R.L. " Readings in Rural Settlement Geography".
- Michaele E. and E. Hurse: ' Transportation Geography".
- Edward Arnold: " The Study of Urban Geography".
- George Omura: Mastering Auto CAD, BPB Publication, b14 Connautplace, New Delhi