DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD.

Curriculum under Choice Based Credit & Grading System

M.A. I & II Year

Geography

Semester–I to IV

run at college level from the Academic Year 2015-16 & onwards

DR.BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY

DEPARTMENT OF GEOGRAPHY

Syllabus

M. A. FIRST AND SECOND YEAR (GEOGRAPHY)

SCHEME FOR CHOICE BASED CREDIT SYSTEM (CBCS) AND AWARDING GRADES TO THE POST GRADUATE STUDENTS IN UNIVERSITY DEPARTMENTS

(Effective from 2011-2012 and Onwards)

DR.BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD

DEPARTMENT OF GEOGRAPHY

Curriculum Structure and Scheme of Evaluation for
M.A.Ist year

SEMESTER – FIRST

Sr. No	Course	Name of the Subject	Scheme of Teaching (periods per week)			Scheme of Evaluation marks				
			T	P	Total periods	Theory exam	Internal	Practical	Total marks	Total credits
1	GEO 401	Geomorphology (Comp)	04	-	04	80	20	-	100	4
2	GEO 402	Climatology (Comp)	04	-	04	80	20	-	100	4
3	GEO 421	Geography of Tourism (Opt)	04	-	04	80	20	-	100	4
4	GEO 422	Geography of Transportation (Opt)	04	-	04	80	20	-	100	4
4	GEO 451	Practical – I (Comp)		04	04	-	-	100	100	4
Total			12	04	16	240	60	100	400	16

SEMESTER – SECOND

Sr. No	Course	Name of the Subject	Scheme of Teaching (period per week)			Scheme of Evaluation Marks				
			T	P	Total periods	Theory Exam	Internal	Practical	Total marks	Total credits
1	GEO 403	Oceanography (Comp)	04	-	04	80	20	-	100	4
2	GEO 404	Geography of water Resources (comp)	04	-	04	80	20	-	100	4
3	GEO 423	Regional planning and Development (Opt)	04	-	04	80	20	-	100	4
4	GEO 424	Geography of Population (Opt)	04	-	04	80	20	-	100	4
5	GEO 452	Practical – II(Comp)		04	04	-	-	100	100	4
Total			12	04	16	240	60	100	400	16

DR.BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD

DEPARTMENT OF GEOGRAPHY

Curriculum Structure and Scheme of Evaluation for
M.A.2nd year

SEMESTER – THIRD

Sr. No	Course	Name of the Subject	Scheme of Teaching (periods per week)			Scheme of Evaluation marks				
			T	P	Total periods	Theory exam	Internal	practica	Total marks	Total credits
1	GEO 405	Evolution of Geographical Thought (Comp)	04	-	04	80	20	-	100	4
2	GEO 406	Agricultural Geography (Comp)	04	-	04	80	20	-	100	4
3	GEO 425	Regional Geography of India (Opt)	04	-	04	80	20	-	100	4
4	GEO 426	Geography of Health (Opt)	04	-	04	80	20	-	100	4
5	GEO 441	Geographical Study of Natural Disasters (Service Course)	04	-	04	80	20	-	100	4
6	GEO 453	Practical – III (Comp)		04	04	-	-	100	100	4
Total			12	04	16	320	60	100	500	20

SEMESTER – FOURTH

Sr. No	Course	Name of the Subject	Scheme of Teaching (period per week)			Scheme of Evaluation Marks				
			T	P	Total periods	Theory Exam	Internal	Practical	Total marks	Total credits
1	GEO 407	Settlement Geography (Comp)	04	-	04	80	20	-	100	4
2	GEO 408	Political Geography (comp)	04	-	04	80	20	-	100	4
3	GEO 427	Biogeography (Opt)	04	-	04	80	20	-	100	4
4	GEO 428	Remote Sensing Techniques (Opt)	04	-	04	80	20	-	100	4
5	GEO 454	Practical – IV (Comp)		04	04	-	-	100	100	4
Total			12	04	16	240	60	100	400	16

M.A I st year (Geography)

SEMESTER – FIRST

GEOMORPHOLOGY (Compulsory)

Subject Ref. No. GEO 401

No. of Credits : 04
No. of periods per weeks : 04
Assignments/Sessionals : 20
Semester Exam : 80

Unit I Definition, Nature scope of Geomorphology. Fundamental concept in Geomorphology.
Uniformitaranism-Co-relationship of the subject with human settlement and transportation.
Requirement of periods – 12 and Marks - 15.

Unit II Earth movement – Eperogenic and orogenic movement, continental drift theory, plate tectonics, Theory of isostacy.
Requirement of periods –12 and Marks –15.

Unit III Earthquake and volcanoes – causes and effects Land features formed by earthquakes and volcanoes with geographical distribution.
Requirement of periods -08 and Marks –15.

Unit IV Weathering – its types and effects.
Requirement of periods – 8 and Marks – 15.

Unit V Geomorphologic processes.
Fluvial, Glacial, Karst and acolin process and resulting land forms.
Requirement of periods –20 and Marks-20.

Suggested Reading –

1. **Chorlely, R.J:** Spatial Analysis in Geomorphology, Methuen, **London 1972.**
2. **Cooke, R.U.and Eoornkamp, J.C:** Geomorphology in environmental Management an introduction, Clare don press, **oxford 1974.**
3. **Dully, G.H:** the Face of the earth, penguin Harmon worth, **1959.**
4. **Fairbridge, R.W:** Encyclopedia of geomorphology, **Reinhold's, New York 1968.**
5. **Goudie ,A:** The Nature of the environment ,oxford & Blackwell, **London .1993**
6. **Gamer ,H.F :** The origin of landscape – a synthesis of geomorphology, Oxford university press, London **1974**
7. **Mitchell ,C.W :** Terrain evaluation **,Longman Landon 1979**
8. **Oilier ,C.D :** withering **,Longman London 1979**
9. **Pity A.F :** Introduction to geomorphology, Methuen **London 1971**
10. **Stoddard ,D.R (ed) :** process and form geomorphology ,Rout ledge . **New York, 1995**
11. **Skinner ,B.J & PORTER ,S.C :** The dynamic earth John Wiley , **New York, 1995**
12. **Sparks B.W:** Geomorphology ,Longman **Landon, 1960**
13. **Sharma H.S (ed):** perspectives in geomorphology concept **,New Delhi,1980**
14. **Singh .S :** Geomorphology,Prayag publication **,Allahabad ,1998**
15. **Thorn bury, W.D:** principles of geomorphology, John Wiley, **New York, 1960.**

CLIMATOLOGY (Compulsory)

Subject Ref. No. GEO 402

No. of Credits : 04
No. of periods per weeks : 04
Assignments/Sessionals : 20
Semester Exam : 80

Unit I Nature, scope and significance of climatology

Requirement of periods –8 and Marks –15

Unit II Composition and division of atmosphere. Impact of ozone layer

Requirement of periods –8 and Marks –15

Unit III Air pressure belts. Planetary, seasonal winds, cyclones, Anticyclones. Jet streams, Blizzards, Brick fielders, Norwesters, Loo winds, Ocean atmospheric interaction El Nino.

Requirement of periods –12 and Marks –15

Unit IV Air mass and Frontogenessis

Atmospheric moisture – Humidity, evaporation condensation. Types of precipitation and clouds.

Acid rainfall.

Requirement of periods- 12 and Marks-15.

Unit V Climatic regions of the world.

Climatic classifications of koppen and thornwaite.

Climatic change- Evidences, global warming environmental impact.

Requirement of periods –20 and Marks –20

Suggested Readings-

1. Barry ,R.G and Chorley P.J : Atmosphere ,weather and climate. Rout edge , London, and New York ,1998
2. Critchfield ,J.H : General climatology ,Prentice hall India , New Delhi 1993
3. Das, p.k: Monsoons National Book Trust, New Delhi 1987.
4. Fein ,J.S and Stephens ,P.N : Monsoon willey science 1978
5. India Met Dept : Climatologically Tables of India Govt of India 1968
6. Lal ,D.S : Climatology , Chaitanya publication ,Allahabad ,1986
7. Lydolph ,P.E: The climate of the earth Row man 1985
8. Meson ,P.A :Our weather N.B.T.New Delhi 1989
9. Peterson ,S : Introduction to meteorology ,McGraw Hill Book. London 1969
10. Robinson ,P.J.and Henderson S: contemporary climatology , Hen low 1999
11. Thomson, R.D and Perry, a (Ed): Applied climatology principles and practice, Routledge, London, 1997.

GEOGRAPHY OF TOURISM (OPTIONAL)

Subject Ref. No. GEO 421

No. of Credits : 04
No. of periods per weeks : 04
Assignments/Sessionals : 20
Semester Exam : 80

Unit I Definition, nature and scope of tourism geography. Factors influencing tourism Historical, natural socio cultural and economical.

Requirement of periods - 10 periods and Marks-15

Unit II Motivational factors for tourism and pilgrimages. Type of Tourism natural, cultural, adventure tourism, national and international tourism

Requirement of periods -10 and Marks - 15

Unit III Development of tourist centers in India; especially hill stations religious places, National parks, sanctuaries, sea shores, sea beaches important historical monuments

Requirement of periods -10 and Marks -15

Unit IV significant tourist places in Maharashtra especially Ellora, Ajanta caves, Forts, national parks, sea –shore areas and religious places .obstacles in the way of tourism development in Maharashtra

Requirement of periods-10 and Marks -15

Unit V Infrastructure and support system for tourism .i.e. Accomodation, Hotels, water supply transportation, market, medical facilities .

Impact of Tourism – Environmental, social economic and cultural .positive and Negative

Role of Foreign capital in tourism.

Requirement of periods -20 and Marks-20

Suggested Reading –

1. **Bhatia A.K:** Tourism development ,principles and practical Sterling publishes **New Delhi 1996**
2. **Chandra R.H :** Hill tourism planning and development kanishka publisher **New Delhi 1998**
3. **Inseker :** Tourism planning – an integrated and sustainable development approach Vannostruand and Rein hold **New York 1991**
4. **Multon D:** Geography of world tourism –prentia Hall **New York 1993**
5. **Robinson H.A :** Geography of tourism Macdonald and Evans publication **1996**
6. **Sharma J.K(ed):** Tourism planning and development A new perspective Kanishka publisher's **New Delhi 2008**
7. **Show G and Williams A.M :** critical issues in tourism –a geographical perspective .oxford Blackwell **1994**
8. **Sinha P.C (ed) :** Tourism Impact assessment Anmol publication **New Delhi 1998**
9. **Theo bal W (ed):** Global tourism - the net decade oxford Batkeworth Heinemen oxford Blackwell
10. **Vasse R:** Tourism the Human perspective Holder and Stoughton, **London 1995**
11. **Williams A.M and Shaw G(Ed):** Tourism economic development –western European, Experiences, **Belhaven, London.**

GEOGRAPHY OF TRANSPORTATION (Optional)

Subject Ref. No. GEO 422

No. of Credits : 04
No. of periods per weeks : 04
Assignments/Sessionals : 20
Semester Exam : 80

Unit I Nature, Scope and Signification of Transport Geography. Physical and Cultural factors for the development of transport System.

Requirement of periods -10 and Marks-15.

Unit II Characteristics and relative significance of different modes of transport such as Railways, Roads and Airways.

Requirement of periods -10 and Marks -15.

Unit III Structure – Accessibility and Flow models, Network Structure, Graph theoretic measure, Measurement of accessibility; Model of Network change. Linear Programming and Gravity models.

Requirement of periods -10 and Marks -15.

Unit IV Patterns of movement – the type, patterns of movement and transport modes, simple model of interaction, transportation network the function, pattern of movement.

Movement Geometry, transport development

Requirement of Periods- 10 and Marks -15.

Unit V Transport policy and planning, transport development in developing countries. Growth and problems of urban transportation, environmental degradation, vehicular pollution. National Highway development and planning in India.

Requirement of periods -20 and Marks-20.

Suggested Reading –

1. **Chorley R.J.and Hogget P:** Models in Geography Methuen & Co. **London (1667)**
2. **Hurst M.E(Ed):** Transportation Geography McGraw Hill **(1974)**
3. **Han A:** Transport Economy Macmillan **London (1973)**
4. **Hoyle B.S.(Ed):**Transport and development Macmillan **London (1973)**
5. **Raza M and Agrawal Y.P:** Transport Geography of India Concept, **New Delhi (1985)**
6. **Robinson H:** Geography of Transport MacDonald and Evans, **London (1978)**
7. **White H.P. and Senior M.L:** Transport Geography Longman **London (1983)**

Practical Geography (Compulsory)

Subject Ref. No. GEO 451

No. of Credits : 04
No. of periods per weeks : 04
Semester Exam : 100

Unit I: **Geomorphology**

1. profile –serial ,superimposed, projected and composite
2. slope – methods – degree,

   Gradient, percentage mills,

Requirement of period -10 and Marks -20

Unit II: 1. Method of slope analysis

C.K .Wentworth, G.H.Smiths and Robinsoon's dot method

Requirement of period -10 and Marks -20

Unit III: **Climatology**

Drawing of ISO Lines, super impose columnal diagram, compound columnar diagram, ergograph, chimatograph, wind rose and star diagram

Requirement of periods- 20 and Marks-20.

Unit IV: **Introduction of Geographic Information System.**

Raster model, vector model. Application of GIS in geography

Requirement of periods-20 and Marks-20

Unit V: **Journal and viva- voce**

20 Marks are allotted for journal and viva -voce

Suggested Reading -

1. **Mishra R.P and Ramesh A :** Fundamentals of cartography
   McMillan co **New Delhi**
2. **Singh R.L and Data P.K:** Elements of practical Geography
   Kalyani publication, **New Delhi**
3. **Frazer Taylor:** Geographic Information systems.
   Peraman press oxford 1991

DR.BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY

DEPARTMENT OF GEOGRAPHY

Syllabus

M.A.FIRST YEAR (GEOGRAPHY)

SEMESTER: SECOND

SCHEME FOR CHOICE BASED CREDIT SYSTEM (CBCS) AND AWARDING GRADES TO THE POST GRADUATE STUDENTS IN UNIVERSITY DEPARTMENTS

(Effective from Academic year 2011-2012 and Onwards)

SEMESTER - SECOND

OCEANOGRAPHY (Compulsory)

Subject Ref. No. GEO 403

No. of Credits : 04
No. of periods/weeks : 04
Assignments/Sessionals : 20
Semester Exam : 80

Unit I : Definition and scope of oceanography influence of oceans on climate, food resources, ecosystem and politics.

Requirement of Periods -10 and Marks - 15

Unit II: The depth of Oceans- continental shelf, slope, deep sea plains and oceanic Deeps

Requirement of periods -8 and Marks-15.

Unit III: Temperature, Salinity of oceanic water, classification of marine deposits.

Requirements of Periods-12 and Marks-15.

Unit IV: Coral reefs. Major theories of origin of coral reefs.

Requirement of periods-10 and Marks-15.

Unit V: Movement of Oceanic water. Sea waves, Tides and ocean currents. Reasons for the formation of ocean currents. Surface currents of pacific, Atlantic and Indian Ocean, Effect of ocean currents.

Requirement periods-20 and Marks-20.

Suggested Reading-

1 **Duxbury C.A and Duxbury B:** An introduction to the Marine Environment :Wm.C.Brown Lava **(1986)**

2 **Garrison T:** Oceanography: An introduction to marine science. Cole. pacific Grove **USA (2001).**

3 **Gross M.Grant:** Oceanography: a view of the earth: practice Hall Inc. **New Jersey (1987).**

4 **King C.A.M:** Oceanography for Geographers **(1962).**

5 **Introduction – K.Sidharth** Oceanography and brief Introduction **(2004)**

6 **Peter K.W:** An introduction to the Marine Environment

7 **R.C.Sharma:** The oceans Rajesh New **Delhi (1985)**

8 **Dr.R.C.Sharma and M.Vital:** Oceanography for Geographers Chaitanya Publishing House University Road, **Allahabad (2005).**

9 **Ummerkutty A.N.P:** Science of the Oceans and Human Life OR B.T. **New Delhi (1985).**

12 **Weisberg :** Introductory Oceanography

GEOGRAPHY OF WATER RESOURCES (Compulsory)

Subject Ref. No. GEO 404

No. of Credits : 04
No. of periods/weeks : 04
Assignments/Sessionals : 20
Semester Exam : 80

Unit I: Water as a natural resources and focus of geographical interest Inventory and distribution of world's water resources (surface and subsurface)

Requirement of Periods-10 and Marks -15.

Unit II: Water demands and use – Methods of estimation – agricultural and industrial uses of water. Irrigation method of distribution of the water to farms. Water harvesting techniques and water conservations.

Requirement of periods- 10and Marks-15.

Unit III: water resources management. General trends of water supply to the urban and rural areas in India.
Internal navigation hydel power and recreation.

Requirement of periods-10 and Marks -15.

Unit IV: water problems – pollution, logging, alkanity of soil. Food structural and non structural adjustment of flood Hazards.

Requirement of periods -10 and Marks- 15

Unit V: Conservation and planning for the development of water resources. Social and institutional considerations use of surface and ground water resources. Watershed management. International and Interstate river water dispute.

Requirement of periods -20 and Marks-20.

Suggested Reading:

1. **Agarwal, Anil and Sunita Narain:** Dying wisdom: Rise, fall and postential of India's Traditional water Harvesting System centre for science and environment, **New Delhi, 1997.**

2. **Economic and social Commission for Asia and the pacific, United:** Guidelines for the preparation of National master water plans **1989.**

3. Govt.of India, Ministry of Agriculture Report of the irrigation commission, vol. I to IV, **New Delhi, 1972.**

4. **Gulhati, N.D:** Development of inter- state Rivers: Law and practice in India. Allied pub. **Bombay, 1972.**

5. International water Resource Association and Central Board of irrigation & power: water for Human Needs, Vols. I to V Proceeding of the second world congress on water resources, 12-16 December, **New Delhi, 1975.**

6. **Jones, J.A.:** Global Hydrology: Processes, Resources and Environmental management, **Longman, 1997.**

7. **Matter, J.R.,** Water Resources Distribution, use and Management, john willey. Marylane, 1984.

8. **Newson, M.**Land, water and Development River Basin Systems and their Sustainable management, Routledge, **London, 1992.**

9. **Pereria, H.C:** Landuse and Water Resources, Cambridge University press. **Cambriddge, 1973.**

10. **Rao, K.L.:** India's water wealth, orient Longman, **New Delhi, 1979.**

11. **Singh, R.A.and Singh, S.R.:** water management: principles and practices. Tara publication, **Varanasi, 1979.**

12. **Tideman, E.M.watershed management:** Guidelines for India conditions. omerga, New **Delhi, 1996.**

13. **Todd, D.K.:** Ground water Hydrology, John Willey, **New York, 1959.**

14. **U.S.D.A. :** The year Book of Agriculture: water, oxford and I.B.H.Publishing Co. **New Delhi, 1955.**

15. **Verghese, B.G.:** water of Hope: Integrated water resource Development and Regional Co- operation within the Himalayan – Ganga –Brahmaputra –Barak Basin, oxford IBH, **New Delhi, 1990.**

GEOGRAPHY OF POPULATION (Optional)

Subject Ref. No. GEO 424

No. of Credits : 04
No. of periods/weeks : 04
Assignments/Sessionals : 20
Semester Exam : 80

Unit I: Changing nature of population geography factors affecting distribution of population and density – physical factors, socio –cultural and demographic factors.

Requirement of Periods-10 and Marks-15.

Unit II: Theories of population growth- Malthus, Ricardo, Marx, Demographic transition theory and stages.

Requirement of periods -10 and Marks-15.

Unit III: Population composition: Age and Sex; family and households, Literacy and education, religion, castes, tribes, rural, Urban. Population composition in India.

Requirement of periods -10and Marks-15.

Unit IV: Population Migration: type and dominants of migration, law of migration. Migration in India. Population explosion.

Requirement of periods-10 and Marks-15.

Unit V: Population and development: socio – economic development. Population policies in developing countries with special reference to India. Human Development index and its components population and environment. implications for the future.

Requirement of periods-20 and 10 Marks -20.

Suggested Readings:

1. **Bilasborrow, Richards E and Daniel Hogan,** Population and Deforestations in the Humid Tropics, International Union for the Scientific Study of Population, **Belgium 1999.**

2. **Bogue, D.J.**Priciples in Demography, **John Willey, New York 1969.**

3. **Bose, shish et.at. :** Population in India's Development (1947-2000): Vikas Publishing House, **New Delhi 1974.**

4. **Chandna , R.C.**Geography of Population: Concept, Determinates and Patterns, Kalyani Publishers, **New York 2000.**

5. **Clarke, John I.,** Population Geography, Pergamon Press, **Oxford 1973.**

6. **Cook, Nigel** Principles of Population and Development. Pergmon Press . **New York 1997.**

7. **Daugherty, Helen Gin, Kenneth C.W.Kammeyir.** an Introduction to Population (Second Edition), the Guilford Press, **New York, London 1998.**

8. **Garnier, B.J.**Geography of Population **Longman, London 1970.**

9. **Mamoria, C.B.**India's Population Problem, Kitab Mahal **New Delhi 1981.**

10. **Premi, M.K.,** India's Population: Heading Towards a Billion, B.R.Publishing Corporation, 1991.

11. **Sundaram K.V.and Sudesh Nangia, (ed.)** Population Geography, Heritage. Publications, Delhi 1986.

12. **Woods, R.**Population Analysis in Geography. **Longman, London 1979.**

13. **Zelinsky Wilbur,** a Prologue to Population Geography, **Prentice Hall, 1966.**

REGIONAL PLANNING AND DEVELOPMENT (Optional)

Subject Ref. No. GEO 423

No. of Credits : 04
No. of periods/weeks : 04
Assignments/Sessionals : 20
Semester Exam : 80

Unit I: Regional Concept in Geography. Concept of Space, Area and Locational Attributes.

Requirement of Periods -10 and Marks-15.

Unit II: Types of region: Formal and Functional uniform and nodal. Physical and Resources region.

Requirement of Periods -10 and Marks-15

Unit III: Regional division according to variation in levels of socio economic developments.

Requirement of Periods -10 and Marks-15.

Unit IV: Planning Process: Secteral, Temporal and Spatial, Short terms and long terms planning for a regions development and multiregional planning in the National contect. Indicators of development and their data Sources. Case Study of India.

Requirement of periods- 10 and Marks -15.

Unit V: Multi-level planning process, decentralized planning peoples participation in planning, Panchayat Raj system. Administrative structure and functions of village panchayat, panchayat samiti and Zilla Parishad.

Requirement of Periods -20 and Marks -20.

Suggested Reading:

1. **Abler, R., et.at:** Spatial Organization: the Geographer's view of world, Prentice Hall, Englewood Cliffs, N.J., **1971.**

2. **Bhat, L.S.:** Regional Planning in India, Statistical Publishing Society **Calcutta, 1973.**

3. **Chorly, R.J. and Hogget. :** Models in Geography, Methuen, **London.1967.**

4. **Friedman, J.and Alonso.:** Regional Development and planning: A Reader, M.I.T.Press, **Cambridge, Mass, 1967.**

5. **Gosal, G.S.and Krishan, G.:** Regional Disparities in level of socio-Economic Development in Punjab, Vishal Publications, **Kurushetra.1984.**

6. **Government of India:** planning commission: Third Five year plan, Chapter on Regional Imbalance in development, **New Delhi, 1961.**

7. **Indian council of social science Research:** Survey of Research in Geography, Popular Prakashan, **Bombay, 1972.**

8. **Kundu, A.and Raza, Moonis:** Indian Economy: the Regional Demension, Spectrum Publishers, **New Delhi, 1982.**

9. **Misra, R.P.and others (editors):** Regional Development Planning in India –A Strategy, Institute of Development Studies, **Mysore, 1974.**

10. **Mishra, R.P:** Regional planning: concepts, Techniques and Policies, University of Mysore, **Mysore, 1969.**

11. **Sundaram,K.V.(ed.) :** Geography and planning, Essays in Honour of V.L.S. Prakasa Rao, Concept Publishing Co., **New Delhi,1985.**

12. **Raza Moonis (editer)** Regional Development Heritage Publishers **Delhi, 1988.**

13. **Mishra, R.P.et.al.**Multi-Level Planning Heritage Publishers, **Delhi, 1980.**

PRACTICAL GEOGRAPHY (Compulsory)

Subject Ref. No. GEO 452

No. of Credits : 04
No. of periods/weeks : 04
Semester Exam : 100

Unit I: Definition, Scope and brief history of cartography. Physical and Cultural maps and their Significance

Requirement of periods-10 and Marks-20.

Unit II: Interpretation of Indian Metrological Departments daily weather maps during winter summer and rainy season construction of weather station models.

Requirement of periods-20 and Marks -20.

Unit III: Interpretation of Topographical maps of plain. Plateaus mountainous regions and sea coastal areas under the following heads.

(i) **physical features**
(ii) **Drainage**
(iii) **Natural Vegetation**
(iv) **Means of transport and**
(v) **Human Settlement**

Requirement of periods -20 and Marks-20.

Unit IV: Village Survey from socio-ecconomic, land use, Demography transportation and human settlements point of view.

Requirement of periods-10 and Marks 20.

Unit V: Journal and viva –voce

20 Marks are allotted for this unit.

Suggested Reading:

1. **Mishra R.P.and Ramesh:** A. Fundamentals of Cartography, McMillan Co., **New Delhi, 1986.**

2. **Robinson, A.H.et al.:** Elements of Cartography, john Willey & Sons. **U.S.A.1995.**

3. **Sarkar A.K.Practical Geography:** A Systematic Approach, Oriental Longman, **Calcutta, 1997.**

4. **Singh, R.L.and Dutt, P.K.:** Elements of practical Geography, Kalyani. Publishers, **New Delhi, 1979.**

5. **Mitra, R.P.and Ramesh A:** Fundamental of Cartography Revised Edition. Concept Publication, **New Delhi.**

6. **Negi, Balbir Singh:** Practical Geography third revised **Ed.Kedar Nath and Ram Nath Meerut & Delhi, 1994-95.**

7. **Singh & Karanjta:** Map work and Practical Geography Central Book Dept.**Allahabad 1972.**

8. **Singh, R.L.and Dutt, P.K:** Element of practical Geography, Students Friends **Allahabad. 1968.**

DR.BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY

DEPARTMENT OF GEOGRAPHY

Syllabus

M.A. SECOND YEAR (GEOGRAPHY)

SEMESTER: FOUR

(Effective from 2010-2011 and Onwards)

M.A. 2ND Year (Geography)
SEMESTER- THIRD

Evolution of Geographical Thought (Compulsory)

Subject Ref No : GEO 405

No. of Credits : 04
No. of Periods per Week : 04
Assignment/Sessionals : 20
Semester Exam : 80

Unit I: The significance of Geography as a social and natural science. Selected concepts in the philosophy of Geography, distribution interaction areal differential and special organization.

Requirement of periods 10 and marks 15.

Unit II: Dualism in Geography- Systematic and regional geography, physical and human geography. The myth and reality about dualism.

Allotment of periods shall be 10 and mars 15 for this unit.

Unit III: The contribution of ancient Indian and Chinese scholars in the development of geography.

There shall be 10 periods and 15 marks for this unit.

Unit IV: Quantitative revolution, responses to positivism, behaviorism and post modernism.

Requirement of period 10 and marks 15.

Unit V: Major contribution of selected scholars, discoverers in the development of geography.

1. **Alexander von Humboldt**
2. **Friedrich Ratzel**
3. **Vidal de La blache**
4. **Ferdinand Magellan**
5. **Ferdinand Von Richthofen**
6. **Ellen Churchill semple**
7. **Alfred Hettner**
8. **William Morris Davis**
9. **V. A. Anuchin**
10. **Sir Dudly Stamp**

Recent geographical thought with reference to man environment relationship.

Allotment of periods shall be 20 and marks 20.

Suggested Reading:

1. Abler, Ronald, Adams, Johb S. Gould, Peter: 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, 1944.

5. Hartshorne, R.: Perspectives on Nature of Geography, Rand McNally & Co., 1959.

6. Husain, M.: Evolution of Geographic Thought, Rawat pub., Jaipur, 1984.

7. Johnson, R.J.: The Philosophy and Human Geography, Edward Arnold, London, 1983.

8. Johnson, R.J.: The Future of Geography, Methuen, London, 1988.

9. Minshull, R.: The changing Nature of Geography, Hutchinson University Library London, 1970.

Agricultural Geography

Subject Ref No : GEO 406

No. of Credits : 04
No. of Periods per Week: 04
Assignment/Sessionals : 20
Semester Exam: 80

Unit I: Nature, scope, significance and development of agricultural Geography origin of agriculture, sources of agricultural data.

There shall be 10 periods and 15 marks for this unit.

Unit II: Determinant of agricultural land use. Selected agricultural concepts and their measurements. Cropping pattern, crop concentration, and intensity of cropping. Degree of commercialization, diversification and specification.

Requirement of periods 10 and allotment of marks 15.

Unit III: Von Thunen's theory of agricultural location and its recent modifications whittlesey's classification of agricultural regions. Land use and land capability.

Allotment of periods shall be 10 and marks 15.

Unit IV: Types of farming- plantation.
Agriculture, Extensive, and intensive farming. Shifting farming monoculture, Seri-culture, agriculture productivity and regional imbalance.

Requirement of periods 10 and marks 15.

Unit V: Agriculture in India- Role irrigation, Fertilizers, insecticides, technology. Green Revolution, while revolution. Food deficit and food surplus regions. Nutritional index. Specific problems and the remedies in Indian agriculture. Agricultural policy in India.

Allotment of periods 20 and 20 marks for this unit.

Suggested Reading:

1. **Bayliss Smith, T.P.:** The Ecology of agricultural system. Cambridge university press, **London, 1987.**

2. **Berry, B.J.L. et. All.:** The Geography of Economic System. Prentice Hall, **New York, 1976.**

3. **Brown, L.R.:** The changing world food prospects- The nineties and beyond. world watch Institute, **Washington D.C., 1990.**

4. **Dyson, T.: Population and Food- Global Trend and Furure Prospects** Routledge, **London, 1996.**

5. **Gregor, H.P.:** Geography of Agriculture. Prentice Hall. **New York, 1970.**

6. **Grigg, D.B.:** The Agricultural System of world. Cambridge university press. **New York 1974.**

7. **Hartson, T.N. and Alexander, J. W.:** Economic Geography, prentice Hall. **New Delhi, 1988.**

8. **Mannion, A.M.:** Agriculture and Environment change, John wiley. **London 1995.**

9. **Morgan, W.B. and Norton, R.J.C.:** Agricultural Geography. Mathuen. **London, 1971.**

10. **Morgan, W. B.:** Agriculture in the Third world- A Spatial Analysis. Westview press, **Boulder, 1978.**

11. **Saur, C.O.:** Agricultural origins and Dispersals, M.I.T. Press, mass **U.S.A., 1969.**

12. **Singh, J. and Dhillon, S.S.:** Agricultural Geography, Tata McGrow Hill Pub., **New Delhi, 1988.**

13. **Tarrant, J.R.:** Agricultural Geography. Wiley. **New York, 1974.**

Regional Geography of India (Optional)

Subject Ref No : GEO 425

No. of Credits : 04
No. of Periods per Week : 04
Assignment/Sessionals : 20
Semester Exam : 80

Unit I: Basis of Regionalization of India, Physiographic, Climatic Geo-Political, Agro. , historical, demographic, socio-economic dimensions.

Requirement of periods 10 and Marks 15.

Unit II: Distribution of soil and Natural Vegetation. Policy and Programmes.

10 Periods and 15 Marks.

Unit III: Agriculture and Irrigation facilities, distribution and production of major crops. Agriculture policy and programmes in recent years.

10 periods shall be required and 15 marks are allotted for this unit.

Unit IV: population as the human resource. Its distribution, population explosion, problems arised due to over population. Policies and programmes.

Allotment of periods 10 and 15 marks are distributed.

Unit V: The case study of Mumbai Metropolitan Region, the sahyadris and chhatisgarh in detail.

Requirement of periods shall be 20 and marks 20 for this unit.

Suggested Reading :

1. Centre for science & Environment (1988) state of India's Environment. New Delhi.

2. **Deshpande C.D. India:** A Regional Interpretation ICSSR & Northern Book centre. **1992.**

3. **Dreze, Jean & Amartya Sen(ed.):** India Economic Development and Social Opportunity: Oxford University press, New Delhi. 1996.

4. Kundu A. Raza Moonis: India Economy: the Regional Dimension. Spectrum publishers, **New Delhi, 1982.**

5. **Robinson, Francis** : the Cambridge Encyclopedia of India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan & Maldives. Cambridge university press. **London, 1989.**

6. **Singh R.L.(ed.):** India – A Regional Geography. National Geographical Society, India, **Varanasi, 1971.**

Geography of Health (Optional)

Subject Ref No : GEO 426

No. of Credits : 04
No. of Periods per Week : 04
Assignment/Sessionals : 20
Semester Exam : 80

Unit I: Nature, scope and significance of Geography of Health. Development of this area of specialization. Its distinction from medical science.

10 periods and 15 marks.

Unit II: physical, social , Economic and Environmental factors affecting human health and diseases.

Allotment of periods 10 and marks 15.

Unit III: **WHO** Classification of disease. World distribution of major disease.

10 periods and 15 marks are allotted for this unit.

Unit IV: Ecology, aetiology and transmission of Cholera, Malaria, Tuberculosis, Hepatitis, Leprosy cancer, AIDS and STDS. Diffusion of disease and the causes for the same.

Requirement of 10 periods and 15 marks.

Unit V: Health care international organization WHO, UNICEF and Red cross. Health care Planning and policies in India. Primary health care. Inequalities in health care services. Programmes and policies of health care in India.

20 Periods and 20 marks are allotted for this unit.

Suggested Reading :

1. **Banerjee, B. and Hazra J.:** Geo- Ecology of cholera in west Bengal, University of Calcutta, **Calcutta 1980.**

2. **Cliff, A and Haggent, P.:** Atlas of Disease Distribution, Basil Blackwell, **Oxford, 1989.**

3. **Digby , A. and Stewart, L.(eds.):** Gender, Health and Welfare. Rout Ledge, **New York, 1996.**

4. Hazra, J.(ed.): Heath care planning in Developing countries. University of Calcutta, **Calcutta, 1997.**

5. **Learmonth A.T.A.:** Patterns of Disease and Hunger, A Study in Medical Geography. David & Charles, **Victoria, 1978.**

6. **May, J.M.:** Studies in Disease Ecology, Hafner Pub., **New York, 1961.**

7. **May, J.M.:** Ecology of Human Disease. M.D. Pub., **New York, 1959.**

8. **May, J.M.:** The world Atlas of Disease, Nate Book Trust, **New Delhi, 1970.**

9. **Mc. Glashan, N.D.:** Medical Geography, Methuen, **London, 1972.**

10. **Narayan, K.V.:** Health and Development – Inter- Sectoral Linkages in India. Rawat Pub., **Jaipur, 1997.**

Geographical Study of Natural Disasters (Service Course)

Subject Ref No: GEO 441

No. of Credits : 04
No. of Periods per Week : 04
Assignment/Sessionals : 20
Semester Exam : 80

Unit I : Meaning of disaster, calamity, Hazards, Major characteristics of disasters. Physical and cultural disasters. Major regions of the world of such disasters and loss of life and property.

12 periods are required and 15 Marks for this unit.

Unit II : Epeirogenic, Orogenic and cymatogenic earth movements. Volcanic earthquake and Tsunami hazards due to rapid earth movement. Main types, regions and ill effects of these calamities.

12 periods are required and 15 Marks are allotted for this unit.

Unit III : Cyclonic hazards-cyclone, Hurricanes Tornado, Typhoons, causes for the formation of cyclones. Regions of the cyclones. Precautions before the arrival of cyclones. Effect of cyclonic hazards. Thunder storm, lightening, hail storms and cloud burst calamities.

Required of periods are o8 and 15 Marks.

Unit IV : Flood disaster. Reasons and types of flood disasters. Wet draught areas. Consequences of floods. Major rivers of heavy floods, measures of flood controls.

08 periods are necessary and 15 marks for this unit.

Unit V : **Disaster Management :**
Disaster warning system. Rehabilitations, Prevention, Social Response measures for disasters.

20 periods shall be required and 20 marks are allotted for this unit.

Suggested Reading :

1. Dhara S : Natural disaster, Minimizing Risks the Hindu survey of Environment (2001)

2. Daoglas I and Spencer T : Environmental change and Tropical Geomorphology (Edited) George Allen and Unwin London (1985)

3. Embleton C: Natural Hazards and Global change, ITC Journal 1989 ¾ pp 169-175, Erickson S. L and King B. J. Fundamental of Environmental Management wiley New York (1999)

4. Gupta H. K. Dons and Earthquakes Elsevier Amsterdam (1976)

5. Press F. Need for Action Reduction copying with Natural Hazards, UNESCO (1993)

6. Sinha D. K. towards Basic of Natural disasters, University of Calcutta (1990)

7. Verstappen H. T. Geomorphology, Natural disaster and Global disaster. Proceeding of the symposium sept- 14-16 1989, Enschede Netherlands PP 159-164.

Practical Geography

Subject Ref No: GEO 453

No. of Credits: 04
No. of Periods per Week: 04
Semester Exam: 100

Unit I: Importance of field instrument survey scope and purpose, principle and application of selected survey Instruments.

10 periods and 20 marks are allotted for this unit.

Unit II: plane table survey –plane preparation study of radial, Intersection, open, close survey methods.

Requirement of periods shall be 20 and 20 marks are allotted for this unit.

Unit III: prismatic compass survey: radial intersection, open, close, survey methods

Requirement of periods 15 and marks 20 are allotted for this unit.

Unit IV: correction of bearing, conversion of bearing, correction of bearing by Bowditch method and drawing sketch.

Requirement of periods 15 and marks 20 are allotted for this unit.

Unit V: Journal and Viva-voce.

20 marks are required for this unit.

Suggested Readings:

1. **Hotine, major M:** The re-triangular of Great Britain. Empire survey review **1935.**
2. **Monkhouse:** Maps and Diagrams Methuen **1971.**
3. **Sandover, J.A.** Plane surveying. Arnold **18961.**
4. **Singh, R.L. and Dutt, P.K.:** Element of practical Geography. students friends. **Allahabad. 1968.**

SEMESTER FOURTH

Settlement Geography (Compulsory)

Subject Ref No : GEO 407

No. of Credits : 04
No. of Periods per Week : 04
Assignment/Sessionals : 20
Semester Exam : 80

Unit I: Evolution, size and growth of human settlements. Spatial and temporal trends in size and growth of settlements.

Requirement of periods 10 and marks 15.

Unit II: Distribution pattern: spatial distribution pattern of settlements: theoretical models and empirical findings.

There shall be 10 periods and 15 marks for this unit.

Unit III: Functional classification of villages and towns. Functional typology of Village, Functional structure of towns in India.

Allotment of periods 10 and marks 15.

Unit IV: Ecological Process of urban growth, urban fringe, city region, settlement system, primate city, Rank size rule.

There shall be 10 periods and 15 marks for this unit.

Unit V: settlement hierarchy factors contribution to hierarchy. Christaller's central place theory and August Lasch's theory of market Centre.

Allotment of periods shall be 20 and marks 20.

Suggested Reading:

1. **Ambrose, peter,** concepts in Geography Vol- I Settlement pattern. **Longman 1970.**

2. **Baskin, C.,** (Translator), Central Places in southern Germany, prentice Hall inc. Englewood cliffs New Jersey, 1966. Originally written by C.W. Christaller in German with title Die Zentralen orte suddeutsch land **in 1933.**

3. **Census of India,** House types and Settlement patterns of villages in India. GOI. **New Delhi 1961.**

4. **Haggett, peter, Andrew D. Cliff and Allen Frey** (editer). Location Models Arnold Heinemann **1979.**

5. **King, Leslie, J.,** Central Place Theory, saga publications. **New Delhi 1986.**

6. **Mitra, Ashok, Mukherjee S and Bose R.** Indian Cities Abhinav Publications. **New Delhi 1980.**

7. **Nangia, Sudesh,** Delhi Metropolitan Region, K.B. Publications. **New Delhi 1976.**

Political Geography (Compulsory)

Subject Ref No : GEO 408

No. of Credits : 04
No. of Periods per Week : 04
Assignment/Sessionals : 20
Semester Exam : 80

Unit I: Nature, scope and recent development in political Geography. Geopolitics and political Geography.

Requirement of periods 10 and marks 15.

Unit II: Geographic elements and the state- physical Human and Economic elements

10 periods and 15 marks are distributed to this unit.

Unit III: concept of nation. Difference between frontiers and boundaries. The classification of international boundaries.

The requirement of periods 10 and the allotment of marks 15.

Unit IV: Geopolitical significance of Indian ocean, Geopolitics of SAARC Region. Politics of world resources.

10 periods and 15 marks shall be required for this unit.

Unit V: Global strategic views- Heart land theory, Rim land theory, sea-power theory.

Requirement of periods 20 and marks 20.

Suggested Readings:

1. **Alexander, L.M.** World Political Patterns Ran McNally, **Chicago, 1963.**

2. **De Blij, H.J. and Glassner, Martin,** Systematic Political Geography, John Wiley, **New York, 1968.**

3. **Dikshit, R. D. Political Geography:** A contemporary Perspective. Tata McGrow Hill, **New Delhi. 1996.**

4. **Dikshit, R. D. Political Geography:** A Century of progress, Sage. **New Delhi, 1999.**

5. **Sukhwal, B.L.** Modern Political Geography of India, sterling publishers. **New Delhi. 1968.**

6. **Taylor, peter;** political Geography Longman, **London, 1968.**

7. **Fisher Charles A.:** Essays in political Geography, Methuen, **London, 1968.**

8. **Pounds N.J.G.:** Political Geography. McGraw Hill, **New York, 1972.**

9. **John R. Short:** An introduction to political Geography Rout ledge, **London, 1982.**

10. **Moddie, A. E:** Geography behind Politics Hutchinson, **London.** Latest edition.

Bio- Geography (Optional)

Subject Ref No : GEO 427

No. of Credits : 04
No. of Periods per Week : 04
Assignment/Sessionals : 20
Semester Exam : 80

Unit I: scope and development of Biogeography. Environments, Habitat and plant-animal association.

There shall be period 8 and 15 marks for this unit.

Unit II: Physical factors influencing world distribution of plants and animals: forms functions of ecosystem; Forest, Grassland, Marine and Mountain ecosystem.

There shall be 12 periods and 15 marks for this unit.

Unit III: Bio-diversity and its depletion through natural and man induced.

12 periods and 15 marks for this unit.

Unit IV: Human Ecology and environmental relationship.

Periods 8 and marks 15.

Unit V: Conservation and Management of ecosystems; Environmental hazards and problems of population; ozone depletion.

20 periods and 20 marks for this unit.

Suggested Reading :

1. Agarwal D.P.: Man and Environment in India through Ages, Book and Book 1992.
2. Mathur H.S: Essential of Biogeography. Anuj Printers Jaipur 1998.
3. Pears N: Basic Biogeography 2nd edition. Longman London 1985.
4. Simmon I.G: Biography, Natural and cultural Longman. London 1974.
5. Tivy. J.I: Biography : A Study of plants in Ecosphere 3rd Edition. Olive an Boyd U.S.A. 1992.

Remote Sensing Techniques (Optional)

Subject Ref No : GEO 428

No. of Credits : 04
No. of Periods per Week : 04
Assignment/Sessionals: 20
Semester Exam : 80

Unit I: Remote sensing and computer application in mapping; Digital mapping; Geographic Information System (GIS).

10 Periods and 15 marks for this unit.

Unit II: Air photos and photogrammetry; Elements of photographic system: types, scales and Ground coverage, resolution, radiometric characteristics.

There is 10 periods and 15 marks are allotted for this unit.

Unit III: Satellite Remote Sensing: Platforms, LANDSAT, SPOT, NOAAAHRR, RADARSAT IRS, INSAT, Principle and Geometry of scanners and CCD arrays. Orbital Characteristics and data products- MSS, TM, LISS I and II, SPOTPLA and MLA SLAR.

There shall be 10 periods and 15 marks allotment of this unit.

Unit IV: Image processing; types of imagery, techniques of visual interpretation. Ground verification, transfer of interpreted them tic information to base maps – digital processing.

10 periods and 15 marks for this unit.

Unit V: **Applications Techniques**
Air photo and image interpretations and mapping land use and land cover, and evolution, resources. Integration of Remote sensing and GIS remote sensing and hazard management, remote sensing and environmental management.

20 periods and 20 marks for this unit.

Suggested Reading:

1. **American society of photogrammetry:** Manual of Remote Sensing. ASP, Falls Church, V.A., **1983.**

2. **Barrett E.C. and L.F. Curtis:** Fundamentals of Remote Sensing and Air Photo interpretation, Mcmillan, **New York, 1992.**

3. **Compbell J.:** Introduction to Remote Sensing, Guilford, **New York. 1989.**

4. **Curran, Paul J.:** Principles of Remote Sensing, Longman, **London. 1985.**

5. **Hord R. M.:** Digital Image Processing of Remotely Sensed Data, Academic, **New York. 1989.**

6. **Pratt W.K.** Digital Image Processing. Wiley, **New York, 1978.**

7. **Luder D.:** Aerial Photography Interpretation: Principles and Application, McGraw Hill, **New York, 1959.**

Practical Geography (Compulsory)

Subject Ref No : GEO 454

No. of Credits : 04
No. of Periods per Week : 04
Semester Exam : 100

Unit 1: Data sources and types of data. Statistical diagrams; study of frequency distribution and cumulative frequency.

There shall be 20 periods and 20 marks allotment of this unit.

Unit 2: Measure of central tendency. Selection of class intervals for mapping.

20 periods and 20 marks for this unit.

Unit 3: Measure of dispersion and concentration standard deviation.

20 periods and 20 marks.

Unit 4: Tour and Tour Report.

5 Days and 20 Marks.

Unit 5: Viva-Voce and Journals

20 Marks allotted for this unit.

Suggested Reading:

1. **David Unwin**, Introductory Spatial Analysis, Methuen, **London**, 1981.
2. **Gregory, S**, Statistical Methods and the Geographer, Longman, **London,1978.**
3. **Hammond R and P.S. McCullagh** Quantitative Techniques in Geography: An introduction, Clarendan Press, **Oxford, 1974.**
4. **John P. Cole and Cuchlaine A.M. King**, Quantitative Geography, John Wiley, **London. 1968.**
5. **Johnson R.J.**, Multivariate Statistical Analysis in Geography. Longman. **London, 1973.**
6. Koutsoyiannis, Theory of Economic, McMillan, **London, 1973.**
7. Maurice Yeats, An Introduction to Quantitative Analysis in Human Geography, McGraw Hill, **New York, 1974.**