

**SWAMI RAMANAND TEERTH MARATHWADA
UNIVERSITY, NANDED**

SYLLABUS

GEOGRAPHY

M.A./M.Sc. FIRST YEAR

SEMESTER I

With Effect From June 2014

GEOGRAPHY

M.A./M.Sc. Ist Year

Allocation of periods and scheme of examination with title of papers with effect from June, 2008

SEMESTER-I

Paper No.	Title of Paper	Periods per week	Marks			Duration of Examination
			Internal	External	Total	
I	Geomorphology	4	20	80	100	3 Hour
II	Climatology	4	20	80	100	3 Hour
III	Economic Geography	4	20	80	100	3 Hour
IV	Practical	6	20	80	100	4 Hour
	Total	18	80	320	400	

SEMESTER-II

Paper No.	Title of Paper	Periods per week	Marks			Duration of Examination
			Internal	External	Total	
I	Geomorphology	4	20	80	100	3 Hour
II	Climatology	4	20	80	100	3 Hour
III	Economic Geography	4	20	80	100	3 Hour
IV	Practical	6	20	80	100	4 Hour
	Total	18	80	320	400	

Note :

- 1) Internal marks (20) will be divided as follows
 - a. Two tests of 5 Marks each. = 10 Marks
 - b. One Seminar of 5 Marks = 05 Marks
 - c. Review of one book of related subject of 5 marks = 05 Marks
- 2) Total periods for each theory paper shall be 50 per semester.
- 3) Total periods for each practical paper shall be 70 per semester
- 4) Strength of students for each practical batch shall not be more than twelve.
- 5) Submission of Certified Journal and field Report is compulsory without which students will not be allowed to appear practical examination.

M.A. / M.Sc. FIRST YEAR
SEMESTER-I
PAPER-I
GEOMORPHOLOGY

Unit-I	08 Periods
A. Definition, nature and scope of geomorphology	
B. Fundamental concepts in geomorphology	
Unit-II	10 Periods
<u>Earth Movements</u>	
A. Epeirogenic process-Causes and Effects	
B. Orogenic process- Causes and Effects	
C. Seismicity-Meaning, Causes and Effects	
D. Vulcanicity-Meaning, Causes and Effects	
E. Tsunamis-Meaning, Causes and Effects	
Unit-III	08 Periods
A. Wegner's continental drift theory	
B. Isostasy	
C. Plate tectonics	
D. Concept of cycle of erosion	
Unit-IV	08 Periods
<u>Exogenic Processes</u>	
A. Concept of gradation-Agents and Processes of Gradation	
B. Causes, Types and Classification of Weathering and mass movement	
C. Concept of slope evolution, down wearing, parallel retreat and slope replacement models.	

Unit-V

12 Periods

Geomorphic Processes and Resulting Landforms

- A. Fluvial B. Arid C. Glacial D. Karst and
E. Coastal

Unit-VI

04 Periods

Application of Geomorphology to human activities

- A. Settlements B. Transport C. Landuse D. Mining
E. Resource evaluation and F. Environmental hazards and assessment

Suggested Reading

1. Chorley, R.J. : Spatial Analysis in Geomorphology
2. Cooke, R.U. and : Geomorphology in Environmental
Doomkamp, J.C. Management an Introduction
3. Dury, G.H. : The Face of the Earth
4. Fairbridge R.W. : Encyclopedia of Geomorphology
5. Goudie A. : The Nature of the Environment
6. Gamer, H.P. : The Origin of Landscape
7. Mitchell, C.W. : Terrain Evaluation
8. Ollier, C.D. : Weathering
9. Pitty, A.F. : Introduction to Geomorphology
10. Stoddart, D.R. : Process and Form in Geomorphology
11. Skinner, B.J. &
Porter, S.C. : The Dynamic Earth
12. Sparks, B.W. : Geomorphology
13. Sharma, H.S. : Perspectives in Geomorphology
14. Singh, S. : Geomorphology
15. Thombury, W.D. : Principles of Geomorphology

M.A. / M.Sc. FIRST YEAR

SEMESTER-I

PAPER-II

CLIMATOLOGY

Unit-I

10 Periods

A. Nature and scope of climatology and its relationship with meteorology.

Composition and Structure of the atmosphere

B. Insulation, Heat balance of the earth. Green house effect.

Vertical and horizontal distribution of temperature

Unit-II

10 Periods

A. Atmospheric pressure. Vertical and horizontal distribution of pressure, pressure belts.

B. Atmospheric motion, Forces controlling motion of the air

General circulation in the atmosphere.

C. Planetary and local winds; Monsoons and Jet streams.

Unit-III

10 Periods

A. Atmospheric moisture: Humidity, vaporation, condensation, precipitation, formation and types.

B. Acid rain, world pattern of precipitation

Unit-IV

10 Periods

A. Concept of Air mass, Classification, Fronts-front genesis

B. Temperate and tropical cyclones.

C. Ocean atmospheric interaction – El Nino, Southern Oscillation and La Nina

Unit-V

10 Periods

- A. Koppen's Thornthwaite's and Trewartha's classification of world climate.
- B. Global Warming – Causes and Environmental impacts.
- C. Applied climatology and urban climate

Suggested Readings

- 1) Barry, R.G. and Chorley P.J. : Atmosphere, Weather and Climate
- 2) Critchfield, J.H. : General Climatology
- 3) Das P.K. : Monsoons
- 4) Fein, J.S. and Stephens, P.N. : Monsoons
- 5) India Met. Deptt. : Climatological Tables of
Observatories In India
- 6) Lal, D.S. : Climatology
- 7) Lydolph, P.E. : The Climate of the Earth
- 8) Menon, P.A. : Our Weather
- 9) Peterson, S. : Introduction to Meterology
- 10) Robinson, P.J. and Henderson S. : Contemporary Climatology
- 11) Thompson, R.D. and Perry : Applied Climatology, Principles and
Practice

M.A. / M.Sc. FIRST YEAR
SEMESTER-I
PAPER-III
ECONOMIC GEOGRAPHY

Unit-I

10 Periods

- A. Definition, nature and scope of economic geography. Relation of economic geography with economics and other branches of social sciences.
- B. Location of economic activities and spatial organization of economics.
Classification of economies : sectors of economy-primary, secondary and tertiary.

Unit-II

10 Periods

- A. Factors of location of economic activities : Physical, social, economic and cultural.
- B. Concept and techniques of delimitation of agricultural regions, crop combination and diversification.
- C. Von Thunen's model and its modification, Rostov's model of stages of growth.

Unit-III

10 Periods

- A. Classification of industries; Resource based and footloose industries.
- B. Theories of industrial location-Weber, Losch and Isard
- C. Case studies of selected industries in the world with special reference to India- I. Iron and Steel, II. Cotton and III. Chemical

Unit-IV**10 Periods**

- A. Modes of transportation and transport cost, accessibility and connectivity, international, inter and interregional, comparative cost advantages.
- B. Typology of markets, market network in rural societies, market system in urban economy, role of market in the development of trade and commerce.

Unit-V**10 Periods**

- A. Economic development of India, Regional Disparities, Impact of Green Revolution on Indian Economy.
- B. Globalization and Indian economy and its impact on Environment.

Suggested Readings

- 1) Berry J.L. : Geography of Market Centres and Retail Distribution
- 2) Chatterjee, S.P. : Economic Geography of Asia
- 3) Chorley, R.J. and Haggett, P. : Network Analysis in Geography
- 4) Dreze, J. and Sen, A.: India-Economic Development and Social Opportunity.
- 5) Ecklarsley, R. : Markets, the State and the Environment
- 6) Garnier, B.J. and Delobez: A Geography of Marketing
- 7) Hamilton, F.E.I. : Spatial Perspectives on Industrial Organization and Decision Making
- 8) Hamilton, I. : Resources and Industry

- 9) Hurst, E. : Transport Geography-Comments and Readings
- 10)Morgan, W.B. and : Agricultural Geography
Munton R.J.C.
- 11) Pachuri, R.K. : Energy and Economic Development in India
- 12)Robertson, D. : Globalization and Environment
- 13)Rostow, W.W. : The Stages of Economic Growth
- 14)Singh J. and Dhillon S.S.: Agricultural Geography
- 15)Symons L. : Agricultural Geography
- 16)Wheeler, J.O. : Economic Geograpy

M.A. / M.Sc. FIRST YEAR

SEMESTER-I

PAPER-IV

PRACTICAL-I

Unit-I

25 Periods

- A. Profile – Serial, Superimposed, Projected, Composite
- B. Slope-Methods of Measurements of Slopes
 - i. Degree ii. Gradient iii. Percentage iv. Mills
- C. Methods of Slope Analysis
 - i. C.K. Wentworth's Method ii. G.H. Smith's Method
 - iii. Robinson's Dot Method

Unit-II

15 Periods

Interpretation of topographical maps of coastal, mountainous, arid and plain regions of India and foreign countries.

Unit-III

15 Periods

- A. Prismatic compass survey-open and close traverse correction of Bearings by Bodwditch's method.
- B. Dumpy level survey.
- C. Measurement of height by Abney level and Indian Clinometer.

Field Visit and Preparation of Report

Students to be taken on a field visit for one day to nearby areas.

Main objectives of field visit are :

- i. To prepare contour plan by using Dumpy level.
- ii. To measure height by using Abney Level and Indian clinometers
- iii. To identify the landforms on the surface, while in the field. Also note the agents of erosion, transportation and deposition associated with the landforms.
- iv. To prepare the report with maps, sketches, photographs etc.

Suggested Readings

- 1) Mishra R.P. and Ramesh A. : Fundamentals of Cartography
- 2) Pal, S.K. : Statistics for Geoscientists
- 3) Robinson, A.H. : Elements of Cartography
- 4) Sarkar A.K. : Practical Geography-A Systematic Approach
- 5) Sing, R.L. and Dutt, P.K. : Elements of Practical Geography

**SWAMI RAMANAND TEERTH MARATHWADA
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SYLLABUS

GEOGRAPHY

M.A./M.Sc. FIRST YEAR

SEMESTER II

With Effect from June 2014

M.A. / M.Sc. FIRST YEAR

SEMESTER-II

PAPER-V

OCEANOGRAPHY

Unit-I

10 Periods

- A. Definition, nature and scope of oceanography
- B. Nature of ocean floor-continental shelf, continental slope, deep ocean basin and trenches. Expansion of ocean floor.
- C. Bottom topography of the Atlantic, Pacific and Indian Oceans.

Unit-II

08 Periods

- A. Physical and chemical properties of sea water, heat and salt budgets of ocean.
- B. Distribution of temperature and salinity.

Unit-II

08 Periods

- A. Ocean circulation :
Oceanic currents, factors affecting on oceanic currents, currents of Atlantic, Pacific and Indian Ocean.
- B. Sea Waves and Tides

Unit-IV

08 Periods

Marine deposits – classification of deposits, coral reefs, coral bleaching

Unit-V

08 Periods

Marine resources : Biological resources, mineral resources and energy resources.

Unit-VI

08 Periods

- A. Major marine environment : Estuaries, deltas, continental shelf, continental slope.
- B. Impact of human on marine environment Laws of sea.

Suggested Readings :

- 1) Anikouchine, W.A. and Sternberg, R.W. : The world Oceans : An Introduction to Oceanography
- 2) Grald S. : General Oceanography – An Introduction
- 3) Garrison T. : Oceanography
- 4) King C.A.M. : Beaches and Coasts
- 5) King C.A.M. : Oceanography and Geographers
- 6) Sharma R.C. Vatel M. : Oceanography for Geographers
- 7) Shepard, F.P. : Submarine Geology
- 8) Thurman, H.B. : Introductory Oceanography
- 9) Weisberg J and Howard : Introductory Oceanography

M.A. / M.Sc. FIRST YEAR
SEMESTER-II
PAPER-VI
URBAN GEOGRAPHY

Unit-I

12 Periods

- A. Definition, nature and scope of Urban Geography
- B. Importance of the study of Urban Geography
- C. Attributes of urban places during ancient, medieval and modern period

Unit-II

12 Periods

- A. Process of urbanization – from early periods to modern and 20th century trends of urbanization.
- B. Concept of Urbanization, city region, rural-urban fringe, urban sprawl, ribbon corridor.
- C. Megalopolis, conurbation, rank size rule, primate city, central business district (C.B.D.) and its characteristics.
- D. Concept of Hinterland and Umland

Unit-III

14 Periods

- Important theories and landuse models in Urban Geography
- A. Central place theory of Christaller and Losch.
 - B. Theory of peroux and Boudeville
 - C. Concentric zone model by E.W. Burgess
 - D. Sector model by Homer Hoyte
 - E. Multiple nuclei model by Harris and Ullman.

Unit-IV

12 Periods

- A. Morphological characteristics of Indian cities.
- B. Basic and non-basic functions.
- C. Contemporary urban issues of Indian urban centres-slums, urban renewal, urban crime, urban infrastructure, urban poverty, housing and environmental pollution.

Suggested Readings

- 1) Alam, S.M. : Hyderabad, Secunderabad Twin Cities
- 2) Berry B.J.L. and Horton F.F. : Geographic Perspectives on Urban Systems
- 3) Carter H. : The Study of Urban Geography
- 4) Chorley, R.J.O. Haggett P. : Models of Geography
- 5) Dickinson, R.E. : City and Region
- 6) Dwyer, D.J. : The City as a Center of Change in Asia
- 7) Gibbs, G.P. : Urban Research Methods
- 8) Hall, P. : Urban Development and Urban Geography
- 9) Kundu, A. : Urban Development and Urban Geography
- 10) Mumford, L. : Culture of Cities
- 11) Smailes A.E. : The Geography of Towns
- 12) Meyor and Kohn : Reading in Urban Geography

M.A. / M.Sc. FIRST YEAR
SEMESTER-II
PAPER-VII
POLITICAL GEOGRAPHY

Unit-I

08 Periods

- A. Definition, nature and scope of Political Geography
- B. Recent Development in Political Geography
- C. Approaches to the study of Political Geography

Unit-II

08 Periods

- A. Geographic elements and the state :
 - Physical, Cultural and Economic Elements
- A. Political Geography and Environment Interface

Unit-III

08 Periods

- A. Themes in Political Geography
 - State, Nation and Nation-State and Nation-Building
- B. Frontiers and Boundaries, Core Areas

Unit-IV

08 Periods

Geopolitical significance of the Indian Ocean

Unit-V

08 Periods

Global strategic views : The views of Mackinder, Spykman, de. Seversky and Mahan and their relevance to contemporary world situation.

Unit-VI

10 Periods

- A. Political Geography of contemporary India with special reference to the changing political map of India.
- B. Centripetal and centrifugal forces; stability and instability; interstate issues (Like water disputes and riparian claims) and conflict resolutions, insurgency in border states; Emergence of new state; Federal India : Unity in diversity

Suggested Readings

- 1) Alexander, L.M. : World Political Patterns
- 2) De Blij, H.J. and Glassner, Matrin: Systematic Political Geography
- 3) Dikshit, R.D. : Political Geography
- 4) Sukhwal, B.L. : Modern Political Geography of India.
- 5) Taylor, B.L. : Political Geography
- 6) Pounds N.J.G. : Political Geography
- 7) John, R. Short : An Introduction of Political Geography
- 8) Moddie, A.E. : Geography Behind Politics
- 9) Prescott, J.R.V. : The Geography of Frontiers and Boundaries
- 10) Deshpande C.D. : India – A Regional Interpretation
- 11) Panikkar K.M. : Geographical Factors in Indian History

M.A. / M.Sc. FIRST YEAR
SEMESTER-II
PAPER-VII
PRACTICAL-II

Unit-I

20 Periods

Representation of Climatic Data

- A. Drawings of Isolines
- B. Ergograph
- C. Climatograph
- D. Wind Rose, Octagonal wind rose, Star Diagram
- E. Rainfall dispersion diagram

Unit-II

20 Periods

- A. Interpretation of Weather maps of India
- B. Weather station model
- C. Identification of climatic types according to Koppen

Unit-III

20 Periods

- A. Graphical presentation of frequency
 - i. Histogram ii. Frequency polygaon iii. Ogive curve
- B. Measures of deviation
 - i. Quartile deviation ii. Mean deviation iii. Standard deviation
- C. Methods of measuring correlation
 - i. Scattered diagram method ii. Graphic method
 - iii. Karl Pearson's method iv. Rank Order Spearman's method

D. i. Chi-Square Test and Standard Error

ii. Regression equation and regression line

Unit-IV

10 Periods

Field visit and preparation of report

Students to be taken on a field visit for one day to nearby village/town/

Tourist place. Main objectives of field visit are :

- i. To collect demographic / social / economic data of the households with a structured questionnaire.
- ii. To prepare the report with maps, sketches and photographs

Note :

- a. Total periods of each practical of 100 marks (80+20) shall be 70 per semester.
- b. Strength of students for each practical batch shall not be more than twelve.
- c. Submission of certified journal and field report is compulsory.

Suggested Readings

- 1) Mishra R.P. and Ramesh, A. : Fundamental of Cartography
- 2) Pal, S.K. : Statistics for Geoscientist
- 3) Robinson, A.H. : Elements of Cartography
- 4) Sarkar, A.K. : Practical Geography – A Systematic Approach
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