MA SEMESTER 3rd

GEOG0RAPHY

M.AGEO301 **End semester: 60**

Mid sem : 20
Quiz :20

Total marks:100

II(c) - Bio- Geography Duration–

Unit – I Meaning and scope of Bio- Geography, History of Zoo- Geography and Plant Geography, Ecology, Habitat and Climatic factors, Plant response to environment.

Unit – II Barriers to distribution and means of dispersal of plants. Types of Plant and plant Communities in general. Factors controlling forest distribution. Characteristics and distribution of Equatorial and temperate forests and grasslands.

Unit - III Climate change and their effect on the plant cover, condition of existence for animals. Barriers to distribution and means of dispersal of animals. Types of Isolation, effect of geographic Isolation. Distribution of animals.

Unit - IV Zoo Geographical regions. Aquatic environment and life, marine and fresh water Fauna. Vegetation and floral regions of India, economic importance.

Unit - V Conservation of wild life and forests, Soil erosion and conservation. Pollution and its effect on wild life and vegetation. National Parks and Sanctuaries of India. Biodiversity and its conservation.

Books Recommended : 1. Newbegin : Plant and Animal Geography 2. Cline : Foundation of Plant Geography 3. G. Ponald : The Geography of Flowering Plants. 4. Darlington : Zoo- Geography 5. Schimper : Plant Geography 6. S. L.

MA SEMESTER 3rd

GEOGRAPHY

M.AGEO302	**End semester: 60**
Lecture: 4 hrs/week	**Mid sem : 20**
Exam duration: 3 hours	**Quiz : 20**
	Total Marks :100

Paper VIII (a) - Political Geography

Unit - I Definition, Scope and Development of Political Geography : 1. Definition and scope of political geography : its relation with other social sciences. 2. Geopolitics and German School of Thought 3. Development of Political Geography. Concepts of Mackinder, Spykman,, Meining, Hoosan, De Seversky, World's Geostrategic regions. 4. Geo-politics and conflict zones of the world.

Unit - II Methodology : 1. The functional approach and Unified Field Theory in Political Geography. 2. The Elements of the state : Territory, Population, Organisation & power. 3. The Heart of the State : Core Areas. 4. The Focus : Capital City.

Unit - III Frontiers, Boundaries : Concepts and Classification : 21 1. Frontiers, Boundaries and Buffer Zones. 2. Classification of Boundaries, changing concept. 3. The concept of Territorial Sea and Maritime Boundaries. 4. Landlocked States : Problems of access.

Unit - IV Growth of Nations and Disintegration of Empires: 1. Unitary and Federal States. 2. The Dying Colonialism and Resurgent Nationalism. 3. Supernationalism: from State to Blocks Strategy of International Politics : 1. Study of Federation of Independent States and U.S.A. as Power. 2. Emergence of Third World Block. 3. Politico-geographical study of India.

Unit - V Extending Dimensions of Political Geography: 1. The Politics and transportation. 2. The geography of foreign aid and economic development. 3. The politico-geographical implications of space research. 4. Electoral Geography - Importance, Concepts, Electoral studies of elections and Gerrymandering.

MA SEMESTER 3rd

GEOGRAPHY

M.AGEO303
Lecture: 4 hrs/week
Exam duration: 3 hours

End semester: 60
Mid sem : 20
Quiz : 20
Total marks :100

Paper VIII (b) - Research Methodology

Unit-I Problems of Geographical Research, Identification of Problems of regional and systematic Geography. Nature and source of data to be used, Hypothesis, Models.

Unit- II Preparation of Research project and report writing, Carotgraphic representation of agricultural, transport, marketing and industrial data. Selected techniques of spatial analysis, Methods of measurement of concentration and dispersion of economic activities.

Unit - III Nearest neighbour analysis with examples, Regional interaction analysis, Gravity potential, Methods of delimiting regions - Resource Regions, Economic, Industrial, Agricultural and Planning regions.

Unit- IV Regional population analysis - Population projection, Population Migration Projection, Network analysis with examples. Delimiting urban and market spheres of influence.

Unit-V Techniques of Map analysis. Basics of Remote Sensing and G.I.S.. Morphometric analysis - drainage, scope analysis, Integrated area development planning.

Books Recommended: 1. David, Unwin : Introductory Spatial Analysis, Methuen, London, 1981. 23 2. Gregory, S. : Statistical Methods and the

Geographer, Longman,London, 1978. 3. Mahmood, A. : Statistical Methods in Geographical Studies, Delhi,

MA SEMESTER 3rd

GEOGRAPHY

M.AGEO304

End semester: 60

Lecture: 4 hrs/week

Mid sem : 20

Exam duration: 3 hours

Quiz: 20

Toatal Marks :100

Paper VIII(c) - Regional Planning and Development

Unit - I Regional concept in Geography, Conceptual and theoretical framework, merits and limitations for application to regional planning and development; changing concept of the region from an interdisciplinary view-point.

Unit- II Concept of space, area and locational attributes. Approaches to delineation of different types of regions and their utility in planning. Planning process - sectoral, temporal and spatial dimensions;

Unit-III Indicators of development and disparities - case study of India. Regional development strategies - concentration v/s dispersal, case studies for plans of developed and developing countries.

Unit- IV Short- term and long term planning in a national context. Regional plans of India Regional development in India - problems and prospects..

Unit- V Concept of Multi-level planning : Decentralised planning; Peoples participation in the planning process; Panchayati Raj system. Role and relationship of Panchayati Raj institutions (Village Panchaayat, Panchayat Samiti and Zila Parishad) and administrative structure (Village, Block and District).

Books Recommended : 1. Abler, R. et.al : Spatial Organisation : The Geograper's View of the World, Prenti

MA SEMESTER 3

GEOGRAPHY

M.A GEO305 **End semester: 60**

Lecture: 4 hrs/week **Mid sem : 20**
Exam duration: 3 hours **Quiz : 20**
Total Marks : 100

Paper VIII (d) - Remote Sensing and GIS

Unit-I REMOTE SENSING - Meaning history and scope of remote sensing. Basic principles of Remote sensing:- Electro-magnetic radiation (EMR) and Spectrum, Laws of Radiation, Interaction of EMR with atmosphere and Earth's surface. Platforms and Sensors- their types and characteristics. Concept of resolution, Concept of resolution, Concept of Signatures.

Unit-2 Basic concept and principles of Thermal, microwave and hyper-spectral sensing, Fundamentals of Aerial Photography and photogrametry. Air photo interpretation, Digital Image processing and classification. Geo reference system.

Unit-3 Satellite Remote Sensing: History and development of various types of satellite and space program with special reference to Indian Space Resources program. Satellite orbits - Geo-stationary and sunsynchronous. Earth Resources Satellites- LANDSAT, SPOT, IRS, and IKONOS satellite series. Meteorological satellites – INSAT, NOAA. Bhuva.

Unit-4 Geography Information System: Introduction, components of GIS, Data models and structure: vector raster data, Data base creation and management. Data inputting methods, attribute data input and management, spatial data editing, data integration, GIS softwares-open source softwares. Importance of GIS.

Unit-5 Global position system, segment of GPS: The space segment – GPS satellite systems, GPS of various countries with special reference to NAVIC. Applications of remote sensing in under Planning, water resource management, Land use studies, environmental impact assessment, geology, mineral exploration, disaster management. Application of GIS.

Text Books: 1. Remote Sensing and its application by J.R. Jensen 2. Introduction to Remote sensing-James Campbell and R.H wynne

MA SEMESTER IV

Advanced Climatology Teaching

MA GEO401	**End semester: 60**
Lecture: 4 hrs/week	**Mid semester: 20**
Exam duration: 3 hours	**Quiz : 20**
	Total Marks=100

SEMESTER Paper 401: Advanced Climatology Teaching H

Unit 1 Fundamental principles of Climatology; Earth-Sun relationship.Elements of Weather and Climate.Origin, Composition and Structure of Atmosphere. Temperature: Temperature belts of the World; Solar Radiation principles, Heat Budget of the World; Atmospheric circulation; Atmospheric stability and instability; Greenhouse effects, Horizontal and Vertical Distribution of temperature & Inversion of Temperature. Global warming and Global Cooling. –

Unit 2 Atmospheric Pressure: Pressure belts of the World; Pressure Gradient, Coriolis Effect, Horizontal and vertical distribution of Air Pressure and Pressure Belts. Winds: Planetary, Monsoons, Local Winds, Jet Streams. Mechanism of monsoon.Types and distribution of precipitation; Weather and climate; Hydrological cycle and water balance and Humidity.ElNino and La Nina phenomena, El-Nino-Southern Oscillation (ENSO). –

Unit 3 Air-Masses: Definition, Nature, Source Region, Classification. Fronts – Fronto genisis and Frontolysis, Classification of Fronts, Frontal Zones. Cyclones: Types, Tropical Cyclones - Origin, Types and Structure of Tropical Cyclone. Distribution of Tropical and Temperate Cyclones.Features of Temperate Cyclone, Source Region, Origin of Temperate Cyclone.Polar Front, tornadoes.Study of weather disturbances through Satellites. –

Unit 4 Classification of World Climates: Koppen's & Thornthwaite & Trewarthas Classification. Changes in World Climate: Global Warming, Depletion of Ozone layer & Green House Effect. Weather Forecasting, Problems and Prospects of Weather Forecasting in India. Global Climate change and role and response of man in climate changes; Applied climatology and urban climate. Climate changes; Natural and human induced factors.Paleoclimatology.): climatology, PrayagPustakBhawan, 20-A, University Road, Allahabad- 02. UP. 2. Critchfield H.J. (2005): General climatology, prentice Hall of Inida, Pvt. Ltd. New

13 References 1. Savindra Singh (2005): climatology, PrayagPustakBhawan, 20-A, University Road, Allahabad- 02. UP. 2. Critchfield H.J. (2005): General climatology, prentice Hall of Inida, Pvt. Ltd. New Delhi- 01 3. Lal D.S (2009) : Physical Geography, sharadaPustakBhawan, II, University Road, Allahabad – UP. 4. Siddhartha K (2005): Atmosphere, weather and climate, Kisalaya Publications Pvt.ltd., C—2, Padma apartment, Mehruli, New Delhi-30. 5. Lal D.S. (2005): climatology: SharaduPustakBhawan, 11, University Road, Allahabad - 02, UP. 6. Dasagupta A and Kapoor A.N. (1978): Principles of Physical

SEMESTER IV

Advanced Oceanography Teaching

MA GEO402	**End semester: 60**
Lecture: 4 hrs/week	**Mid semester: 20**
Exam duration: 3 hours	**Quiz : 20**
	Total Marks=100

SEMESTER Paper 402: Advanced Oceanography Teaching Hour:

Unit 1 Scope and Content of Oceanography, Importance of the Oceans, Origin of the ocean basins; The Morphology of Ocean Bottoms - Continental Shelf, Slope, Submarine canyons and its related theories, Ocean Plains and Ocean Deeps, Heat and salt budget. –

Unit 2 Bottom relief of the Ocean: Relief of the Atlantic, the Pacific and the Indian Ocean. Physical and Chemical Properties of Ocean waters: Composition, Temperature, Density and Salinity of Ocean water, Ice in the Sea, effects of polar Ice on the Atmospheric circulations. –

Unit 3 Movements and Circulation of Ocean Water: Waves, Tides, Currents and their Effects, Deep circulation. Currents in Pacific, Atlantic and Indian Ocean, Coastal Ecology-Coastal Dunes and Mangroves. Marine resources: Biotic, mineral and energy resource and their utilization. –

Unit 4 Ocean Deposits: Types and Distribution, Coral Reefs: Origin, Types and Theories of Origin of Coral Reefs (Darwin, Dally and Murray), Coastal Bleaching. Impact of Humans on the Marine Environment.Recent Trends in Oceanography. Sea-level changes, Law of the sea and marine pollution.

- 13 References: 1. Lal. D.S. (2003) Oceanography, SharadaPustakBhavan, Allahabad 02. 2. King Cuchalaine A.M. (2000) Oceanography for geographers, Edward Arnold publications, London. 3. Savindra Singh (2004): physical geography, PrayogPustakBhavan, Allahabad -02 4. Siddharth (2005) Oceanography: A brief introduction, Rawat Publishers. New Delhi. 5. Sharma RC (2000) Oceanography for Geographers, Chaitanya Publishers, Allahabad -02 6. Vattal and Sharma (2003), Oceanography for

MA SEMESTER IV

World Geography Teaching

MA GEO403

Lecture: 4 hrs/week **End semester: 60**

Exam duration: 3 hours **Mid semester: 20**

Quiz : 20

Total Marks=100

SEMESTER Paper: 403World Geography Teaching

Unit – 1 Eurasia - Physiography: Mountains, Plateaus, Plain, Coastal Areas, Deserts, Rivers. Issues and Challenges: Drinking Water and Water Sharing; Malnutrition; Outbreak of Viral Diseases; Antisocial Activities – Terrorism; Population Issues – Gender Discrimination, Age-related Population Pyramid.

Unit – 2: America – Physiography: Mountains, Plateaus, Plain, Coastal Areas, Deserts, Rivers. Issues and Challenges: Drinking Water and Water Sharing; Malnutrition; Outbreak of Viral Diseases; Antisocial Activities – Terrorism; Population Issues – Gender Discrimination, Age-related Population Pyramid.

Unit – 3 Africa – Physiography: Mountains, Plateaus, Plain, Coastal Areas, Deserts, Rivers. Issues and Challenges: Drinking Water and Water Sharing; Malnutrition; Outbreak of Viral Diseases; Antisocial Activities – Terrorism; Population Issues – Gender Discrimination, Age-related Population Pyramid.

Unit – 4 Oceania – Physiography: Mountains, Plateaus, Plain, Coastal Areas, Deserts, Rivers. Issues and Challenges: Drinking Water and Water Sharing; Malnutrition; Outbreak of Viral Diseases; Antisocial Activities – Terrorism; Population Issues – Gender Discrimination, Age-related Population Pyramid.

References: 1. Majid Husain., 2004.,World Geography.,RawatPublications.,Jaipur., India. 2. Qazi S.A., NavaidShabirQazi., 2007., Geography of the World., APH Publishing Corporation., New Delhi., India. 3. Prajapathi R.V., 2008.,Encyclopedia of World Geography., Cybertech Publications., New Delhi., India. 28

MA SEMESTER IV

(A) Geography of Tourism Teaching

MA-GEO 404

Lecture: 4 hrs/week **End semester: 60**

Exam duration: 3 hours **Mid semester: 20**

Quiz : 20

Total Marks=100

SEMESTER Paper: 404Geography of Tourism Teaching Hour:

Unit 1 Geography of Tourism: Definition, Nature, Scope and Extent. Concept of Tourism, Importance of Tourism.Relationship between Geography and Tourism, Tourism Promotion– Ecotourism, Agro-tourism, Heritage tourism and Adventure tourism.Factors affecting Tourism – Physical and Cultural factors.Tourism motivation, tourism as an industry. –

Unit 2 The Classification of Tourism and Tourists: Types of Tourism – Domestic and International Tourism - Adventure, Wildlife, Medical, Pilgrimage, Business, Leisure, Pleasure, Eco and Cultural Tourisms. Comparison between Mass and Alternative Tourism.Tourists types – Local, National and International. Impact of Tourism– Economic Impact, Physical and Environmental Impact, Socio-Cultural Impact. –

Unit 3 Infrastructural Approach for the development of Tourism – Mode of transportation, Agencies, Guides, License, Hotels, Resorts, Youth Hostels, Home stays, Govt. TB,. Role of Foreign Capital and Impact of Globalization on Tourism, Environmental Law and Tourism Government Policies for Planning and Promotion of Tourism in India.State level tourism planning in India with special reference to Karnataka. –

Unit 4 Case Studies – Major Tourist Centers. Hill Station – Mount Abu, Shimla, Kudhuremukha. Beach Points – Mangalore, Vizag, Pangim, Marino Beach. Historical centers – Badami, Bijapur, Mysore, Ellora and Tajmahal. Religious Centers – Shiradi, Kanyakumari, Tirupathi and Dhamastala. Dams - T B Dam, Bhakranangal, DVP. National Parks – Dachigam National Park, Gir National Park, Nanda Devi National park, Periyar National park. –

References: 1. Bhatia A.K (1996): Tourism Development: Principles and Practices. Sterling Publishers, New Delhi. 2. Inskeep. E (1991): Tourism Planning: An Integrated and Sustainable Development Approach Van. 3. Kaul R.K (1985): Dynamics of Tourism and Recreation, Inter- India, New Delhi. 4. Kaur, J. (1985): Himalyan Pilgrimages and New Tourism, Himalyan Books, New Delhi 5. Lea, J. (1988): Tourism

MA SEMESTER IV

Natural Disaster Management Teaching

MAGEO 405	**End semester: 60**
Lecture: 4 hrs/week	**Mid semester: 20**
Exam duration: 3 hours	**Quiz : 20**
	Total Marks=100

IV **SEMESTER Paper 405 Natural Disaster Management Teaching**

Unit 1 Environment hazards & disasters: Meaning & approaches, Causes and consequences of disaster: Physical, economic and cultural, National and International organizations into disaster management. Types of environmental hazards and disaster: Natural disasterEarthquake, tsunamis, landslides, volcanic eruption, cyclones, tornados, floods, droughts, heat waves and cold waves. Man induced hazards-Soil erosion, release of toxic chemicals, nuclear explosion, population explosion and resultant environmental disasters. –

Unit 2 Emerging approaches to Disaster management: (1) Pre-disaster stage (Preparedness)- hazard zonation maps-predictability and forecasting warning, land use zoning, Information, Education & Communication (IEC) Disaster resistance house construction, Population reduction in vulnerable area and awareness. (2) Emergency Stage- Rescue training for search and operation at national and regional level, ground management plan preparation, immediate relief, Assessment surveys. (3) Post disaster stage rehabilitation – Political administrative aspects, social aspect, economic aspect, cultural aspect and environmental aspects. –

Unit 3 Natural Disaster mitigation: Relief measure, role of GIS in Relief measures, role of GPS in search and rescue, role of Remote sensing in prediction of hazards and disasters, measures of adjustment of natural hazards. –

Unit 4 Disaster in Indian context: A regional survey of Land Subsidence, Coastal Disaster, Cyclonic Disaster & Disaster in Hills, terror attacks, communal clashes, Remedial measures. National and international policies for disaster management. –

References: 1. R.B.Singh (Ed) ,1990, Environmental Geography, Heritage Publishers New Delhi 2. Savinder Singh,1997, Environmental Geography, PrayagPustakBhawan. 3. Kates,B.I& White,1978, G.F The Environment as Hazards, oxford, New York. 4. R.B. Singh (Ed), 2000,Disaster Management, Rawat