

SHRI JAGDISHPRASAD JHABARMAL TIBREWALAUNIVERSITYCHUDELA, JHUNJHUNU(RAJASTHAN)-333001



SYLLABUS

M.A. / M.SC. GEOGRAPHY
Two Year Full Time Program (2020-202)

(Four-Semester Course)

COURSE CONTENTS

I & II Semester Start From Year 2020-2021
III & IV Semester Start From Year 2021-2022
And Onwards



Shri Jagdish Prasad Jhabarmal Tibrewala University Chudela, Jhunjhunu (Raj.)

M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
I SEMESTER

S.No	Papers	Subject Code	Course Title	Course Category
1.	Paper - I	MGE 101	Geographical Thoughts	CCC
2.	Paper - II	MGE 102	Dynamic Geomorphology	CCC
3.	Paper - III	MGE 103	Economic Geography	CCC
4.	Paper - IV	MGE 104(A01)	Man and Natural Environment	ECC
		MGE 104(A02)	Cultural Geography	ECC
5.	Paper - V	MGE 105	Practical Geography	CCC

CCC- Compulsory Core Courses

ECC- Elective Core Courses

M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
I SEMESTER

Subject Code : MGE 101 : Geographical Thoughts

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Definition, Scope, Nature and purpose of geography, The beginning of Geography in classical age, contribution of Greeks and Romans to Geography with special reference to the work of Herodotus, Eratosthenes, Strabo and Ptolemy.

Section-B

Geography in the middle ages, the geographical ideas of the Christian world. Contributions of Muslims to Medieval Geography, the work of Al-Biruni, Al-masudi, Al-Idrisi, Ibn-Battuta, Ibn-Khaldun, the Geography of ancient India.

Section-C

The revival of scientific Geography during 16th and 17th centuries, Varenus, the development of scientific geography during 18th and 19thcenturies, the works of Kant.

Ancient Indian Geography and Scientific Outlook and Indian influences, **Geography – The Vedic age and Purana's.**

Essential Readings :

- Prof. Husain Majid : Evolution of Geographical Thought Rawat Publications, Jawahar Nagar, Jaipur
- Kathuria, C. D. : History of Geographical Thought : Centrum Press
- Prof. Husain Majid : Human Geography : Rawat Publicalions, Jawahar Nagar, Jaipur
- Peet, Richard : Modern Geographical Thought : Rawat Publicalions, Jawahar Nagar, Jaipur
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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
I SEMESTER

Subject Code : MGE 102 : Dynamic Geomorphology

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Introduction to physical Geography, Definition, Recent Trends in Geomorphology. Zoning of the earth's interior, Thermal state of the interior, Endo genetic forces, Mountain Building Theories, (Kober, jeffreys, joly, Holms, Wegener and plate tectonics), Volcanic activity and Earthquakes, Isostasy.

Section-B

Denudation types or weathering: Physical and chemical weathering; factors affecting weathering processes. Glacial and peri-glacial landforms. Desert and tropical landforms, process of desertification. Concept of erosion – Normal cycle of erosion of Davi's and Penck. Rivers and Drainage Basins, Drainage pattern, Drainage basin and morphometry, baseline changes.

Section-C

Work of Rivers Karst and lime stonetopography. Concepts in Geomorphology various school of landscape development Element of slope various models of slope development.

Essential Readings :

- Singh, S. : Geomorphology, Prayag Pustak Bhawan, Allahabad, 2010
- Dayal, P. : Geomorphology, Rajesh Publication, New Delhi
- Sharma, H.S. (ed.) : Perspective in Geomorphology Concept Publications, New Delhi, 1980
- Woldridge and Morgan : An Introduction to Geomorphology, Longmans, Green and Com. London
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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
I SEMESTER

Subject Code : MGE 103: Economic Geography

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Changing nature of economic geography as a field of study. Agricultural typology-with special reference to: subsistence agriculture, plantation agriculture, Mediterranean agriculture, Mixed farming, Commercial grain farming, Livestock rearing.

Section-B

Energy resources: Conventional and non-conventional spatial patterns and supply problems Industries-Iron & Steel, Aluminum Industry, paper and pulp, cotton textile, chemical Industries-Fertilizer. Decision making process: Location decision-behavioural view. Dynamics of world trade and investment: Trade and growth of international co-operation in trade,.

Section-C

Economic Region-Concept and methods of delineation, need of economic regionalization for area development and planning-economic regions of India. World transportation pattern trade routes, trade policies and their effect of world economic, globalization and economy and its impact on environment.

Essential Readings :

Hartshorn & Alexander	:	Economic Geography, Prentice Hall of India, New Delhi
Alexandra J.W.	:	Economic Geography, Mc Graw Hill, New Delhi
Hodder & Lee	:	Economic Geography, St. Martins Press, New York
Robson, H	:	Economic Geography, Mac. Donald, London
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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
I SEMESTER

Subject Code : MGE 104(A01) : Man and Natural Environment

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Perspective on man environment Relationship, symbiosis between man and Environment, the effect of environment on man: biophysical, perceptual and behavioural related to resource availability.

Section-B

The effect of man on Environment :a. direct and indirectb. man's capacity to modify the environment.The environmental crises, Nature and causes of environmental problems, somecase studies of India,

Section-C

Environmental pollution-Air, Water, Noise, Soil pollutions – Causes, effects, their impacts, reduction in bio-diversity and depletion of forest, global warming and acid rain.

Criteria for environmental quality. Evolution of balanced and healthyenvironment, sustainability of human ecosystem.

Essential Readings :

Saxna, K.K. : Environmental Studies, University Book House, Jaipur

Duffey, E. : Conservation of Nature Collins, London

Singh, R.B. Thakur, D.K.

Chauhan, J.P.S. : Environmental Studies, RBD Jaipur

Edington, J.M. : Ecology Environmental Planning, Champan and Hall, London

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)

I SEMESTER

Subject Code : MGE 104(A02) : Cultural Geography

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

The Nature of Cultural Geography. The evolutionary approach in cultural geography. The Framework of cultural Geography. The evolution of cultural Geography the contribution of otto schluter and carl sauer and others. Themes in cultural Geography the Cultural Region. Humanization of the Earth-Pleistocene inheritance, The environmental changes during the Pleistocene, The Impact of glaciations, Land Dirges and the pattern of land and sea.

Section-B

Shifting life zone of pleistocene, Human encestores, Food gathering and Mans tropical origin, Discovery of fire and building of shelther. The beginning of plant domestication, the regions the agriculture origins, evolution of cropping system, origin of Animal Domestication, the Regions of Animal Domestication, The Consequences of Animal Domestication. The evolution of system of Animal Husbandry. The origin of Metal Extracting and the Diffusion of metal smelting technology.

Section-C

The Geography of Language, the major linguistic families and their distribution in the world language and religion ,Language and Nationalism, Language and Environment. The Geography of Religion- The major religions of the world and their distribution. The Health of semetic and Hindu religion. Building Materials and House typesand fold Architecture. Origin and Diffusion of the City, especially the Grid pattern city,population density regions, Death rate, birth rate and population exploration, Quality of life.

Essential Readings :

1. Jordan and Rowntree-The Human Mosiac
2. Spencer and Thomas-The cultural Geography.
3. Ahmad, Aijazuddin-Social Geography. Rawat Publication, New Delhi.
4. Mitchell, D.-Cultural Geography A Critical Introduction, Blackwell Publishers, Inc. USA.
5. Wagner, P.L. And Mikesell, H.W.(eds) Readings in cultural Geography.

M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)

I SEMESTER

Subject Code : MGE 105 : Practical Geography

1. Written Test on LabWork.	Four hrs (5Qs.)	50 Marks
2. Record Work & Viva-Voce.	(15+10)	25 Marks
3. Project Report & Viva-Voce.	(15+10)	25 Marks
Total-		100Marks
Internal-	(Record Work-15+Project Report-15)	30Marks
External-	(Written Test-50+Viva –Voce-20)	70Marks

Laboratory and Map Work :

- The Art and Science of Cartography. History of Maps. Materials. Techniques an Preparation of Maps.
- Enlargement. Reduction and Finding of Area of Maps. Use of Planimeter.
- Study of geological maps and preparation of their section and interpretation.
- Interpretation of weather-Maps and Weather for cast.
- Elementary Trigonometry.
- Maps Projections.

Projections and their classification :

Construction and characteristics of any three from each of the four classes of projections (mathematical constructions).

I. Conical Projections :

- Equal Area with the one standard parallel(Lambert's Projections)
- Equal Area with two standard parallels(Albert's Projections).
- Bonne's
- polyconic
- International

II. Cylindrical Projections :

- Cylindrical Equal Area
- Mercator's
- Gall's Stereographic.

III.Zenithal Projections:

- Geomonic.
 - (i). Polar Case

- (ii). Eq. Case
- **Stereographic**
 - (i) Polar Case
- **Orthographic**
 - (i) Polar Case
 - (ii) Eq. Case.
- **Equal Area**
 - (i) Polar Case
 - (ii) Eq. Case
- **Equidistant**
 - (i) Polar Case
 - (ii) Eq. Case
- **Conventional projections:**
 - (i) Sinusoidal
 - (ii) Mollweide
 - (iii) Interrupted Mollweide and Godde's
 - (iv) Interrupted Sanson Flemstead (Homolosine),
 - (v) Aito's. Choice of Projections, Projections use

Essential Readings :

- Sharma, J.P. : Practical Geography, Rastogi Publications, Meerut
- Singh, L.R. : Fundamentals of Practical Geography, Sharda Pub. Allahabad
- Sharma, S.R. : Practical Geography, College Book depot, Jaipur
- Crampton, J. : Mapping, Black well, Publications
- Singh, R. L. : Elements of Practical Geography, Students friends Allahabad
Mounck House, F.G. &
- Wilkinson, H.R. : Map & Diagram, B.I. Publications Pvt. Ltd., New Delhi.
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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
II SEMESTER

S.No	Papers	Subject Code	Course Title	Course Category
1.	Paper - I	MGE 201	Modern Geographical Thoughts	CCC
2.	Paper - II	MGE 202	Climatology & Oceanography	CCC
3.	Paper - III	MGE 303	Principal and Theory Economic Geography	CCC
4.	Paper - IV	MGE 104(B01)	Population Geography	ECC
		MGE 104(B02)	Quantitative Techniques in Geography	ECC
5.	Paper - V	MGE 205	Practical Geography	CCC

CCC- Compulsory Core Courses

ECC- Elective Core Courses

M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
II SEMESTER

Subject Code : MGE 201: Modern Geographical Thoughts

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Founders of modern geography, Humboldt and Ritter, shifting view points of geography during the later half of 19th century-Geography as geophysics, geography as a science of planet earth, geography as a science of distribution and geography as science of relationship, the works of Richthofen and Ratzel. Geography as a chronological science, the contributions of Hettner and Hartshome.

Section-B

The development of geographical ideas during the 20th century, geography as a science of landscape morphology, the contribution of Schelluter and Sauer, Geography as Human Ecology, the views of Huntington, Blache and Brunches. C. O. Sauer. The debate between environmental determinism and possibilism, the dualism of regional and systematic geography, the dichotomy of Human and Physical Geography,

Section-C

Quantitative and conceptual revolution in geography, the influence of logical positivism on the development of analytical geography, the development of Behavioural geography, Radical geography.

Exceptionism in geography, scientific positivism, humanistic geography, idealism, phenomenism, development in geography in India. d for maps produced in India.

Essential Readings :

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|--------------------|---|---|
| Prof. Husain Majid | : | Evolution of Geographical Thought Rawat Publications, Jawahar Nagar, Jaipur |
| Kathuria, C. D. | : | History of Geographical Thought : Centrum Press |
| Prof. Husain Majid | : | Human Geography : Rawat Publications, Jawahar Nagar, Jaipur |
| Peet, Richard | : | Modern Geographical Thought : Rawat Publications, Jawahar Nagar, Jaipur |
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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
II SEMESTER

Subject Code : MGE 202: Climatology & Oceanography

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Climatology: The structure of Atmosphere, Atmospheric energy, airtemperature, Heat Balance, Layered structure of atmosphere and characteristics of each layer. Moisture in the Atmosphere, humidity and its expression, Evaporation and condensation, adiabatic-non-adiabatic process, stability and instability, precipitation, Thunderstorms, World precipitation pattern.

Section-B

Air Motion, Pressure variations, Pressure belts, forces governing air movement, upper air motion. General circulation, the planetary wind system, the mechanism of the circulation surface features and circulation. Fronts, air masses and Types, Depression, cyclones (Intra Tropical and extratropical) and anticyclones. Climatic types: Koppen's, Thornthwaite's schemes of climatic classification

Section-C

Oceanography: Oceanic water circulation, Ocean bottom relief, horizontal and vertical distribution of temperature, ocean deposits, origin and impact of ocean currents, Tides and tidal, Theories of coral reef formation, atolls and coral islands, marine resources-biotic, mineral and energy resources and their utilization.

Essential Readings :

- Crichton J.H. : General Climatology Prentice Hall India, New Delhi
- Lal, D.S. : Climatology & Oceanography, Sharda Pustak Bhawan, Allahabad
- Siddharth, K. : Atmosphere, Weather & Climate, Kitab Mahal, New Delhi
- Siddharth, K. : Oceanography : A Brief Introduction, Kitab Mahal, New Delhi

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)

II SEMESTER

Subject Code : MGE 203: Principles and Theory of Economic Geography

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Simple model of economy, environmental relations of the economy. Spatial structure of economy. Geographical basis of economic activities: systematic approach and spatial approach.

Section-B

Manufacturing-Factors of production: Theories of plant location: Weber's Least cost theory, Loscher's economics of location, Isard's space economy, Smith's spatial margins. Spatial variation in transport costs: Location and structure of transport costs. Transportation network analysis and models.

Section-C

Spatial organisation of land use: Laws of return, concept of rent, Vonthunen's isolated state, Vonthunen's principles then and now, classical central placetheory; Range of good, threshold, central place system, central plachierarchy, Modification of christaller's model.

Essential Readings :

- Hartshorn & Alexander : Economic Geography, Prentice Hall of India, New Delhi
- Alexandra J.W. : Economic Geography, Mc Graw Hill, New Delhi
- Hodder & Lee : Economic Geography, St. Martins Press, New York
- Robson, H : Economic Geography, Mac. Donald, London

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
II SEMESTER

Subject Code : MGE 204(B01): Population Geography

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Definition and scope of Population Geography, Theory in Population Geography-Malthusian Neo malthusian and optimum population theory and Biological population Theory. Types of Data and population census with special reference to the Indian censuses. Density and Distribution of population in the world.

Section-B

Factors affecting population Distribution in the world. Measures of population density, Measures of Dispersal and concentration of population and population potential. The Growth of population, world patterns of Fertility and Mortality. Demographic transition. Age and Sex composition, Marital status, Families and Households, Language and Literacy, Religious composition of Population, Economic composition of population, primary occupations, Manufacturing Industry, Transport, Trade and services etc

Section-C

Rural and Urban population and urbanisation. The Growth of India's population, The Death rate and birth rate in India, Density and Distribution of population in India. Age and sex composition in India's population, Urbanisation in India, Occupational composition and internal Migrations.

Essential Readings :

- Adhikari Sudepta : Political Geography of India – A Contemporary Perspective, Sharda Publication, Allahabad.
- Dikshit, R.D. : Political Geography – A Contemporary Prospective, Tata McGraw Hill Publications Co. Ltd., New Delhi.
- Pearcy, C.E. : World Political Geography, Thoms & Y Crowell Co., New York.
- Wegert, A.W. : Principles of Political Geography, Appleton Century Draft, New Delhi.
- Edward E. : Modern Political Geography, W.M.C. Brown Company.

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
II SEMESTER

Subject Code : MGE 204(B02) : Quantitative Techniques in Geography

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Probability: Theory of probabilities- law of addition and multiplication probabilities of distribution. Normal, binomial, poisson-sampling: basic concepts, sample units and design, sampling frame and procedures, standard error and sample size, testing the adequacy of samples.

Section-B

Bivariate Analysis; Forms of relation and measuring the strength of association and relation-construction and meanings of scatter diagram simple linear and regression analysis.

Section-C

Multivariate Analysis; Basics of multiple regression-partial correlation coefficient regression analysis and ANOVA-testing the overall significance of a regression auto correlation-multicollinearity -basis principles and elements of factor Analysis and principal component analysis.

Essential Readings :

John P. Cole & Cuchlanie A.M. King : Quantitative Geography, Johri Witey, London 1968

Nagar, K.N. : Elements of Statistics, Meenaxi Prakashan, Meerut.

Gupta, S.P. : Statistical Methods, S.C. Chand & Co., New Delhi

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
II SEMESTER

Subject Code : MGE 205 : Practical Geography

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Geographical Maps and Diagrams :

Computations of data Preparation of frequency tables representation of data by Histograms and ogives. Finding skewness. Computation of Mean, Median and Modes. Deviations-Standard Deviations and Mean Deviations and finding out of correlations. Theoretical basis of nearest neighbour analysis. Practical exercises of nearest neighbour analysis. Locational analysis of urban centres. Coefficient Variation. All these be computed from the statistical data, preferably based of state, District, Tehsil and Community Development Block as unit areas and the following types of maps and diagrams be prepared. One exercise on each of the following and their interpretations. Isopleth, Choropleth and chorochromatic map. Isochrone map population potential surface map, population Pyramids map. Three dimensional diagrams and cartograms of economic and social data.

Diagrams:

Polygraph semi-log and loggraphs, Trilinear chart, circular graph, Climatograph. Taylors/Fosters Climograph. Annual water deficiency and water surplus graph.

Project Report:

A candidate is to prepare project report of a village area. The candidate is free to select any supervisor amongst the staff members of the project. A supervisor can take only 5 candidates. The marking on the project report will be awarded by the external examiner in consultation with the supervisor concerned. The project should be based on primary data obtained by the candidate. The data should be represented by suitable cartographic methods.

Essential Readings :

Sharma, J.P.	:	Practical Geography, Rastogi Publications, Meerut
Singh, L.R.	:	Fundamentals of Practical Geography, Sharda Pub. Allahabad
Sharma, S.R.	:	Practical Geography, College Book depot, Jaipur
Crampton, J.	:	Mapping, Black well, Publications
Singh, R. L.	:	Elements of Practical Geography, Students friends Allahabad
Mounck House, F.G. &		
Wilkinson, H.R.	:	Map & Diagram, B.I. Publications Pvt. Ltd., New Delhi.
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Jharkhand State Open University University Chudela, Jhunjhunu (Raj.)

M.A. / M.SC. GEOGRAPHY Two year Semester Scheme outline (2020-21 to 2021-22) III SEMESTER

S.No	Papers	Subject Code	Course Title	Course Category
1.	Paper - I	MGE 301	Advanced Geography of India	CCC
2.	Paper - II	MGE 302 (C01)	Research Methodology	ECC
		MGE 302(C02)	Disaster Perception and Management in India	ECC
3.	Paper - III	MGE 303(D01)	Remote Sensing and Geographical Information System	ECC
		MGE 303(D02)	Urban Geography	ECC
4.	Paper - IV	MGE 304(E01)	Political Geography	ECC
		MGE 304(E02)	Advanced Geomorphology	ECC
5.	Paper - V	MGE 305	Practical Geography	CCC

CCC- Compulsory Core Courses

ECC- Elective Core Courses

M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
III SEMESTER

Subject Code : MGE 301: Advanced Geography of India

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Geological :

Structure and its relation with relief and distribution of minerals. physiographic divisions, climatic divisions, soil regions characteristics and distribution, Agro-Climatic regions, Natural regions of India. Resources potential a general appraisal.

Section-B

Land resources, Water resources, Vegetational resources, Animal resources, Mineral resources, Human resources.

Section-C

Resource development : Power, Industries and transport, River basins of India, riverian problems of sharing water and their planning. Economic & Resource regions of India and Regional problems. Indian Agriculture, Trade and Transportation in India, Urban and Rural Settlement in India, Urbanization, Regional Development and Planning in India, Environmental Issues in India.

Essential Readings :

Tritha, R	:	Geography of India, Rawat Publication, New Delhi
Gautam, Alka	:	Advanced Geography of India, Sharda Publication, Allahabad
Singh, R.L.	:	India-A Regional Geography, UBS Publication & Distributors Ltd, New Delhi
Singh Jagdish	:	India-A, Comprehensive Systematic Geography, Gayonodaya Prakasan, Gorkhpur,

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)

III SEMESTER

Subject Code : MGE 302(C01) : Research Methodology

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Problems of geographical research. Identification of problems of regional and systematic Geography sources and natures of data to be used. Hypothesis and Preparation of research projects and writing of reports. Preparation of field reports, spatial data. Classification and sampling problems. Need for sampling, types of sampling, sample size and sampling area.

Section-B

Selected techniques of spatial analysis, methods of measuring concentration and dispersal of economic, activities. Nearest Neighbour analysis, Regional interaction analysis gravity potential, inter-regional flowanalysis, Methods of delimiting regions economic, industrial regions, planning regions, agricultural regions.

Section-C

Population projection, population migration projection; Network analysis and models. Techniques of urban analysis with reference to land use, population and hinterland relationship delimiting sphere of city influence. Determining of core and marginal areas. Techniques of Map Analysis, Morphometric analysis. Thalegaltimetric frequency graphs, Drainage basin analysis, Slope analysis Analysis of biogeochemical cycles, Integrated Area Development planning.

Essential Readings :

Barsil Gomes & John Paul Gomes	:	Research Method in Geography, Blackwell Pub.
Hagget & Chorely	:	Models in Geography, TMH, New Delhi
Hagget Peter	:	Geography, A Modern Synthesis, TMH, New Delhi
King, C.A.M.	:	Techniques in Geomorphology, Prentice Hall
Mahmood, A.	:	Quantitative Techniques inGeography Jawahar Pub. New Delhi
Worting ten & Gant	:	Techniques of Map Analysis, Methuen, London

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
III SEMESTER

Subject Code : MGE 302(C02) : Disaster Perception and Management in India

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Concept of disaster management, its importance, need and scope Hazards, risks, vulnerability and disaster, types of hazards and disaster man made and natural, climate change.

Section-B

Natural and Man Made disaster. Floods, drought, earthquakes, landslides, cyclones, forest fire and Tsunamis, forest degradation, construction of dams, diversion of river channels, mining and quarrying, haphazard urban growth and industrial location.

Section-C

Disaster perceptions: Concept relating to the pre disaster phase, emergency phase and post disaster management, disaster preparedness, mitigation and response. Disasters management mechanism in India: Public awareness, agencies, resources, early warning system, plans, policies, training in disaster management.

Essential Readings :

- Singh Jasbir : Disaster Management – Future Challenges and Opportunities, I.K. International Publishing House Pvt. Ltd.
- Sain Neelam & Sharma Anu : Environment Engineering and Disaster Management.
- Goel S.L. : Disaster Administration and Management, Deep and Deep Publication Pvt. Ltd., New Delhi

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
III SEMESTER

Subject Code : MGE 303(D01) : Remote Sensing and Geographical Information

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Historical development of remote sensing as a technology-Relevance of remote sensing in Geography-Concepts and basics. Energy source, energy and radiation principles, energy interactions in the atmosphere and earth surface features, remote sensing systems: platforms, sensors and radiation records.

Section-B

Air photos and photogrammetry: Elements of photographic system: types, scales and ground coverage, resolution, radiometric characteristics, films, filters, aerial cameras. Parallax, stereoscopic, orthophotos, airphoto interpretation: shape, size, pattern, tone, texture, shadows, site. Satellite Remote sensing: platforms LANDSAT, SPOT, NOAAVHAR, RADARSAT, IRS, INSAT: Principles and geometry of scanners and CCD arrays, orbital characteristics and data products-MSS.TM.LISS I & II.SPOTPLA & MLA, SLAR.

Section-C

Applications: Air and Image interpretations and mapping landuse and land Cover. GIS.- remote sensing and hazard management, remote sensing and environmental management. Introduction to GPS Application of Remote Sensing in land use and land cover and its classification system.

Essential Readings :

- Kiefer, R.W. and Lillisand T.M. : Remote Sensing and Image Interpretation, John Velley Sons, ILC, New York.
- Doi, R.D. : Remote Sensing and its Application – A Monograph Monitoring Vegetated and Land Cover Desertification – 2002, University Book House Ltd., Jaipur.
- Sabins Floyd F. : Remote Sensing Principal and Interpretation W.H. Freeman and Company, New York.
- Jonnen, John R. : Remote Sensing of the Environment – An Earth Resource Perspective, Pearson Education (Singapore) Pvt. Ltd., India Branch, New Delhi.

M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)

III SEMESTER

Subject Code : MGE 303(D02) : Urban Geography

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Meaning, Nature, Aims and scope of Urban Geography, Factors affecting the growth of town during Neolithic period, Greek and Roman Period. Types of cities, Transport foci and center of specialized services. Urbanization in World & India and its problem.

Section-B

Classification of cities based on functions. Urban Rank-Size relationship. The Basic and Non-Basic concept of Urban economic functions and its Urban hierarchy based on functions. Functional structure of towns, Chief characteristics of CBD, Residential area, and other functional areas. Theories and Models of urban structure. Centrifugal and Centripetal forces in Urban Geography. Development of suburbs, rural, urban fringe, satellite towns, ring towns, sphere of urban influence (Umland) and its delimitation.

Section-C

Urban Problems (developing, developed and under develop countries), Problems of environmental, Urban poverty, slums, transportations, Housing, crimes. Principles of Town planning, Preparation of a Master plan, Study of Master plan of Jaipur, Study of Planned City–Chandigarh, Principles of Regional planning. Issues and Planning. National Urban Policy and Urban Land use.

Essential Readings :

- Taylor G. : Urban Geography, Muthyen and Co., London.
Dickinson, R.E. : City, Region and Regionalism, Routledge and Kegan Paul, London.
A.E. Smailes : The Geography of Towns, Hutchinson, University Library, London.

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)

III SEMESTER

Subject Code : MGE 304(E01) : Political Geography

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Definition, Scope and Development of Political Geography: Geopolitics and German School of Thought. Development of Political Geography-Concepts of Mackinder, Spykman, Meining, Hooson, De Seversky, World's geostrategic regions. The Functional Approach in Political Geography by Hartshorne, The Unified field Theory of political Geography by B.S.Jones.

Section-B

State Temporal and spatial Attributes, Resources: The Elements of the State: Territory, Population, Organization and Power, The Heart of The State: core Areas, The Focus: Capital City. Frontiers and Boundaries: Concepts and Classification Frontiers, Boundaries and Buffer Zones, Classification of Boundaries Changing Concept, The concept of Territorial sea and Maritime Boundaries, Landlocked States :

Section-C

Extending Dimensions of Political Geography The Politics and Transportation, Politico-Geographical Study of India, Political Geography of Administration. The Function and Methods of Electoral Geography: Electoral Studies in Political Geography, Conceptual Model of the Voting Decision.

Essential Readings :

- Adhikari Sudeepta : Political Geography of India – A Contemporary Perspective, Sharda Publication, Allahabad.
- Dikshit, R.D. : Political Geography – A Contemporary Prospective, Tata McGraw Hill Publications Co. Ltd., New Delhi.
- Pearcy, C.E. : World Political Geography, Thoms & Y Crowell Co., New York.
- Wegert, A.W. : Principles of Political Geography, Appleton Century Draft, New Delhi.
- Edward E. : Modern Political Geography, W.M.C. Brown Company.

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
III SEMESTER

Subject Code : MGE 304(E02) : Advanced Geomorphology

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Nature and scope of Geomorphology, Fundamental concepts-Geological structures and landforms, uniformitarianism, multicyclic and polygenetic evolution of landscapes, concept of threshold, Environmental change-climatic change and geochronological methods-documentary evidence, artifacts, major horizons, dendrochronology, pollen, thermoluminescence.

Section-B

Earth movements-epirogenic, orogenic and tectonic earth movements. Forces of crustal instability, isostasy, plate tectonics, seismicity, volcanicity, orogenic structures with reference to the evolution of Himalaya. Orogenic Processes: Concept of gradation, Agents and processes of gradation, causes, types and classification of weathering, mass movement erosional, and depositional processes and resultant landforms and soil formation.

Section-C

slope evolution: slope decline, parallel retreat and slope replacement and dynamic equilibrium models. Geomorphic processes, dynamics of fluvial, glacial, Aeolian, marine, and karst processes and resulting landforms complexities in geomorphological processes, Erosion surface techniques of identification and correlation.

Applied geomorphology-application of geomorphic mapping, terrain evaluation. Digital Elevation Model (DEM) and Triangulated Irregular Network (TIN) unit, land capability and land suitability classification, hydro-geomorphology, urban geomorphology, environmental geomorphology, geomorphic hazards.

Essential Readings :

- Singh, S. : Geomorphology, Prayag Pustak Bhawan, Allahabad, 2010
- Dayal, P. : Geomorphology, Rajesh Publication, New Delhi
- Sharma, H.S. (ed.) : Perspective in Geomorphology Concept Publications, New Delhi, 1980
- Woldridge and Morgan : An Introduction to Geomorphology, Longmans, Green and Com. London

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
III SEMESTER

Subject Code : MGE 305 : Practical Geography

1. Written Test on LabWork.	Four hrs (5Qs.)	50 Marks
2. Record Work & Viva-Voce.	(30+20)	50 Marks
Total-		100Marks
Internal-	(Record Work-15+Project Report-15)	30Marks
External-	(Written Test-50+Viva –Voce-20)	70Marks

Methods and techniques of representation of relief:

Methods and techniques of depicting relief Profile, gradients and calculation of slope, Block diagrams, field sketching, serial profile, hypsographic curves. altimetric frequency graphs.

Interpretation of topographical maps :

A brief history of topographical maps of the world with special reference to India and their interpretation. Detailed study of such topographical sheets which depict typical geomorphological and cultural landscapes. Scanning and digitization of maps.

Air photo interpretation and exercise on the determination of height of plan, parallax, number of runs and number of photographs, knowledge of stereoscopic vision, mosaics; types of cameras, emulsions and stereoscope. Interpretation and identification of cultural and physical features on serial photographs. Photo interpretation of land use and settlements in the field.

Essential Readings :

- Sharma, J.P. : Practical Geography, Rastogi Publications, Meerut
 Singh, L.R. : Fundamentals of Practical Geography, Sharda Pub. Allahabad
 Sharma, S.R. : Practical Geography, College Book depot, Jaipur
 Crampton, J. : Mapping, Black well, Publications
 Singh, R. L. : Elements of Practical Geography, Students friends Allahabad
 Mounck House, F.G. & Wilkinson, H.R. : Map & Diagram, B.I. Publications Pvt. Ltd., New Delhi.

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Shri Jagdish Prasad Jhabarmal Tibrewala University Chudela, Jhunjhunu (Raj.)

M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
IV SEMESTER

S.No	Papers	Subject Code	Course Title	Course Category
1.	Paper - I	MGE 401	Geography of Rajasthan	CCC
2.	Paper - II	MGE 402(F01)	Geography of Water Resource	ECC
		MGE 402(F02)	Applied Geography	ECC
3.	Paper - III	MGE 403(G01)	Regional Planning and Development in India	ECC
		MGE 403(G02)	Agricultural Geography	ECC
4.	Paper - IV	MGE 404(H01)	Industrial Geography	ECC
		MGE 404(H02)	Biogeography	ECC
5.	Paper - V	MGE 405	Practical Geography	CCC

CCC- Compulsory Core Courses

ECC- Elective Core Courses

M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
IV SEMESTER

Subject Code : MGE 401 : Geography of Rajasthan

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Physical aspects of Rajasthan: Geological Structure, Relief, Climate, Drainage, Natural Vegetation, Soils. Environmental Pollution-Causes and types. Drought, Desertification, Soil erosion and conservation, Availability, Problems and Conservation of Water Resources.

Section-B

Economics Aspects: Irrigation, Sources, types, irrigation intensity, Quality of irrigational water problems. Irrigation Projects: Detailed study of Indira Gandhi Canal Project, Chambal Valley Project, Mahi Bajaj Sagar Projects on Physical and socio-economic aspects. Agriculture: General Land Use: Live-Stock and Dairy Development, Minerals. Industries: Textile, Sugar, Cement, Marble and Granite, Zinc and Copper smelting. Power & Energy:

Section-C

Hydro-electricity, Petroleum, Solar Energy. Bio-energy. Transport & Trade. Development of Tourism. Desert development programme. Tribble Areas development programme, Aravali Hill Development programme. Population-number, growth, distribution and density, Rural and urban, Male and female population, Literacy status, Occupational structure, Schedule castes and schedule tribes. Study of Bhil, Meena and Garasia. Population Problems.

Essential Readings :

Bhalla, L.R. : Geography of Rajasthan, Kuldeep Publication, Jaipur.

Mishra, V.C. : Geography of Rajasthan, NBT, Delhi.

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
IV SEMESTER

Subject Code : MGE 402(F01) :Geography of Water Resource

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Water as a focus of geographical interest, inventory and distribution of world's water resources(surface and subsurface);world hydrologic cycle: quantitative estimates; water storages. Glaciers, river channels, lakes and reservoirs, soil moisture, ground water.

Section-B

The basic hydrologic cycle precipitation: potential evapotranspiration and interception losses; runoff. Water demand and use: methods of estimation agricultural industrial and municipal uses of water. Agricultural use of water: estimation of crop-water requirement:soil-watercrop relationships; water balance and drought; major and minor irrigation: methods of distribution of water to farms; water harvesting techniques, soil water conservation.

Section-C

Irrigation-water logging, salinity and alkalinity of soil-over exploitation of ground water, land subsidence, saline water intrusion. Water quality parameters, water pollution over and ground water-fluoride and arsenic.

Essential Readings :

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| Matter, J.R. | : | Water Resources and Distributors, Use and Management, John Wiley, Marylane. |
| Rao K.L. | : | India's Water Wealth, Orient Longman, New Delhi. |
| Jones, J.A. | : | Global Hydrology : Process Resources and Environmental Management, Orient Longman, New Delhi. |
| Athavale R.N. | : | Water harvesting and Sustainable Supply in India, Rawat Publication, Jaipur. |

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
IV SEMESTER

Subject Code : MGE 402(F02) : Regional Planning and Development

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Regional planning: Term, Task, Scope and objective, Specific problems: task and scope of regional planning in developing countries, Principles and Determination of Regional planning, Importance of the density, distribution and development of population for regional planning.

Section-B

Significance of the term 'Integration'(Political, Economic, social and spatial) for regional planning. Importance of the political system for regional planning, Significance of the factor, adaptation of developments of different social classes of the population for regional planning.

Section-C

Methods of Regional planning: Factor Analysis, Comparative Cost-analysis, Industrial complex and analysis, Shift analysis. Types of Planning, Multilevels Plannings. Regional and Sectorial Policy in India, Five Year Plan, Problems and Planning of Tribal and hill areas. Drought prone areas, Command areas, Watershed and river basin. Regional Disparities in Development and Policy Measures for Correlations.

Essential Readings :

Chandra, R.C. : Regional Planning and Development, Kalyani Publications, Ludhiyana.

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)

IV SEMESTER

Subject Code : MGE 403(G01) : Applied Geography

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Principles and methods, Nature and scope. Application of geographical methods of survey and analysis to contemporary, Physical, Socio-economic and Political Problems with Special Reference to Problems of Agriculture, Population and Settlements.

Section-B

Geographical application of distinctive economic principles including the evolution of Geographical Mapping of Production. Need & Basis of Land Classification, Agricultural land use in India and other countries. (USA, UK).

Section-C

Principles of Urban land use Planning. Delimitation of Urban-fields. Functional zoning of Urban land problems of expansion of Urban Centres. Meaning of Communication and their relation to towns.

Essential Readings :

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| E.W. Zimmerman | : | World Resources and Industries. |
| Freeman, T.W. | : | Geography and Planning. |
| Graham | : | Natural Principles of Land Use. |
| Stamp, L.D. | : | History of Land Use in Arid Regions. |
| Stamp, L.D. | : | The Land of Britain. Its Use and Misuse. |
| Stamp, L.D. | : | Applied Geography. |
| Stapledon, R.G. | : | The Land of Tomorrow. |

M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
IV SEMESTER

Subject Code : MGE 403(G02) : Agricultural Geography

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Concept, Nature, origin and dispersal of agriculture, Models in Agriculture Geography. Physical factors: Relief, slope, soils, water and irrigation, its availability and quality climate (rainfall, temperature, sun shine, humidity, winds).

Section-B

Economic factors: Land tenure, transport, marketing and trade, prices, level of mechanization, labour, capital fertilizers, irrigation, sources of energy in agriculture, size of holdings & agriculture. Types of agriculture shifting cultivation, plantation, agriculture, Mediterranean type, collective and state farming extensive and intensive agriculture and their characteristics.

Section-C

Technological factors in the development of agriculture, Green Revolution, Nutrition and food Balance Sheet, Food Security and Agricultural Problems (Special Reference to India), drought, flood control and management.

Essential Readings :

- Bansal, P.L. : Agricultural Problems in India – Vikash Publication, New Delhi.
- Gregor, H.F. : Geog. of Agricultural Themes in Research Prentice Hall, New Delhi.
- Grigg, D.B. : The Agricultural Systems of the World, Cambridge University Press.
- Negi, B.S. : Agricultural Geography, Kedarnath Padamnath, Meerut.
- Hussain Mazid : Agricultural Geography, Rawat Publication, Jaipur.

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)

IV SEMESTER

Subject Code : MGE- 404(H01) : Industrial Geogrsphy

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Locational factors in manufacturing, concept of optimum location. Significance of cost and price. The Least Cost School and the Transport cost school. The Market Areas school, the Marginal Location school, the Behavioural School.

Section-B

New Trends in industrial Geography. Testing Location Theory, Empirical studies, Significance of Enterprise and Firm. Important Industrial Region of World. The Ruhr Basin Industrial Region, The Great Lakes Industrial Region. Important Industrial Regions of India. Formation of Industrial Regions, Industrial Regions in India. Study of the following regions: The Hooghly side Industrial Regions, The Damodar Valley Industrial Regions.

Section-C

Influence of power and Geographical Inertia in Manufacturing Industries: The Textile Industry, Multi-locational industries, Iron and steel, Market Oriented Industries, The Pulp and Paper. Aluminum, Furniture, Foot loose Industries. Automobile, Building, Raw Material Oriented Industries, copper Industries.

Essential Readings :

- Riley, R.C. : Industrial Geography, Chalton and Windees, London.
- Hoover, E.M. : The location of Economic Activity, McGrawhill, New York.
- Loknathan : Industrial Localisation in India, Chatto and Windees, London.

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M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)

IV SEMESTER

Subject Code : MGE 404(H02) : Biogeography

Total marks of End of Semester (7Question x10Marks each)	= 70 Marks
C.I.A. (Internal Assessment)	= 30 Marks
Maximum Marks	= 100 Marks
Minimum Marks	= 40 Marks

Section-A

Meaning and scope of Bio-geography, History of Zoo-geography and plant geography. Plant and Animal Ecology, Ecosystems-with special reference to mountain and desert. Energy flow in ecosystem. Plant response to environment, the habitat and climatic factors, Taxonomic and Ecological classification of plant. Ecological succession. Concept of Biome, Ecotone and community Factors controlling forest distribution. Characteristics and distribution of tropical forest and grassland.

Section-B

Origin of Fauna and Flora, Taxonomic classification of animals, Animals classification according to general characteristics of Environment. Barriers to distribution and means of dispersal of terrestrial animals. The effect of environment selection on animal distribution of animal; graphical isolation distribution of Animals : The Zoo-Geographical region.

Section-C

Aquatic environment and life, Marine and fresh water fauna Distribution of world fisheries in India. Conservation of natural resources : Forests and wild life and their management and conservation (with reference to India). Environmental pollution, courses and control with special reference to air and water. Bio-Geochemical cycles.

Essential Readings :

- Robinson, H. : Biogeography, Else, Mc. Donald and Evans London, 1982.
Odum, E.P. : Fundamentals of Ecology, W.B. Sanders.
Mathur, H.S. : Essentials of Biogeography, Pointer Publishers, Jaipur, 1988.
Newbegin : Plant and Animal Geography.
Alar Schmid : Economical Animal Geography.
Cline : Foundation of Plant Geography.
G. Ponald : The Geography of flowering plants
Newbegin : Animal Geography
Darlington : Zoo Geography
Schimper : Plant Geography

M.A. / M.SC. GEOGRAPHY
Two year Semester Scheme outline (2020-21 to 2021-22)
IV SEMESTER

Subject Code : MGE 405 : Practical Geography

1. Written Test on LabWork.	Four hrs (5Qs.)	50 Marks
2. Record Work & Viva-Voce.	(15+10)	25 Marks
3. Project Report & Viva-Voce.	(15+10)	25 Marks
Total-		100Marks
Internal-	(Record Work-15+Project Report-15)	30Marks
External-	(Written Test-50+Viva –Voce-20)	70Marks

Field Surveying and Camp Work.

Theodolite: Its parts and their function, use of theodolite, theodolite traverse and traverse computation, independent coordinates. Use of Total Station and GPS. Use and application of plane table and clinometer in small area surveys. Traverse, plane table, resecting: Two and three point problems of leveling, Classification of leveling. Profile, precise and other types of leveling. Use of dumpy level. Practical contouring cross sectioning use and application of abeny level.

Camp Work:

A topographical survey of a settlement of about 500 acres of land will be done by organizing a camp at least for a week away from the centre of the institution and maps and reports of the same will be prepared.(Students are expected to stay in the camp at night).

Essential Readings :

Sharma, J.P. : Practical Geography, Rastogi Publications, Meerut

Singh, L.R. : Fundamentals of Practical Geography, Sharda Pub. Allahabad

Sharma, S.R. : Practical Geography, College Book depot, Jaipur

Crampton, J. : Mapping, Black well, Publications

Singh, R. L. : Elements of Practical Geography, Students friends Allahabad
Mounck House, F.G.

& Wilkinson, H.R. : Map & Diagram, B.I. Publications Pvt. Ltd., New Delhi.

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