



JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

SYLLABUS

MASTER OF ARTS IN GEOGRAPHY
YEAR - 2017

DURATION - 2 YEARS (4 SEMESTERS)

SYLLABUS FOR:
I - II SEMESTERS

FACULTY OF MANAGEMENT AND HUMANITIES

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**M.A. Pass
(I- II Semester)**

SEMESTER I

Nature of Course	Course Name	C	T	D&T	P	PS
GEOGRAPHY	EVOLUTION OF GEOGRAPHICAL THOUGHTS(upto1800AD)	9	8	0	0	1
GEOGRAPHY	STRUCTURAL AND DYNAMIC BASIS OF GEOMORPHOLOGY	9	8	0	0	1
GEOGRAPHY	PRINCIPLES AND THEORY OF ECONOMIC GEOGRAPHY	9	8	0	0	1
GEOGRAPHY	MAN AND NATURAL ENVIRONMENT	9	8	0	0	1
GEOGRAPHY	PRACTICAL GEOGRAPHY	5	2	0	2	1
University Compulsory Course	Curriculum Training & Exposure	1	0	0	1	0
	COMMUNITY DEVELOPMENT ACTIVITIES	1	0	0	1	0
University Optional Course	PROFESSIONAL ACTIVITY	-	-	-	-	-
Total Credits:		43	34	0	4	5

SEMESTER II

Nature of Course	Course Name	C	T	D&T	P	PS
GEOGRAPHY	MODERN AND CONTEMPORARY GEOGRAPHICAL THOUGHT(19 TH CENTURY ONWARDS)	9	8	0	0	1
GEOGRAPHY	CLIMATOLOGY AND OCEANOGRAPHY	9	8	0	0	1
GEOGRAPHY	PRINCIPLES AND THEORY OF ECONOMIC GEOGRAPHY -II	9	8	0	0	1
GEOGRAPHY	POPULATION GEOGRAPHY	9	8	0	0	1
GEOGRAPHY	PRACTICAL GEOGRAPHY	5	2	0	2	1
University Compulsory Course	Women Rights & Law (WRL)	1	1	0	0	0
	Curriculum Training & Exposure	1	0	0	1	0

	COMMUNITY DEVELOPMENT ACTIVITIES	1	0	0	1	0
University Optional Course	PROFESSIONAL ACTIVITY	-	-	-	-	-
Total Credits:		44	35	0	4	5

Program summary
MA (GEOGRAPHY) Pass
Program Structure - I Year
1st Year consists of I, II Semester
SEMESTER I

Nature of Course	Course Name	C	T	D&T	P
EVOLUTION OF GEOGRAPHICAL THOUGHTS(upt o1800AD)	Herodotus, Eratosthenes, Posidonius, Strabo and Ptolemy.	2	2	0	0
	Al-Biruni, Al-Muquaddassi, Al-Masudi, Al-Idris, Ibn Battuta and Ibn Khaldun.	3	3	0	0
	Varenius, Anton Friedrich Bushing, Immanuel Kant and Conrad Malte Brun.	3	3	0	0
	<i>10 practice sessions for Ptolemy, Al-Biruni, Al-Masudi, Ibn Battuta & Immanuel Kant</i>	1	0	0	9 Sessions
STRUCTURAL AND DYNAMIC BASIS OF GEOMORPHOLOGY	Interior structure of the earth, Isostasy, Origin of the continents and oceans, earth movements.	3	3	0	0
	Denudation.	2	2	0	0
	Topographies.	3	3	0	0
	<i>10 practice session for Origin of the continents and oceans, Denudation & Topographies.</i>	1	0	0	9 Sessions
PRINCIPLES AND THEORY OF ECONOMIC GEOGRAPHY -I	agricultural typology-with special reference	3	3	0	0
	Energy resources and Industries.	2	2	0	0
	Decision making process	3	3	0	0
	<i>10 practice sessions for Energy resources and Industries & Decision making process</i>	1	0	0	9 Sessions
MAN AND	Definition and scope of Environmental Geography	2	2	0	0

NATURAL ENVIRONMENT	Environmental crises	3	3	0	0
	Environmental quality	3	3	0	0
	10 practice sessions for Environmental crises & Environmental quality	1	0	0	9 Sessions
PRACTICAL	Cartography	1	1	0	0
	Mathematical construction of projections: Cylindrical, conical.	2	1	0	1
	Zenithal.	1	1	0	0
	10 practice sessions for Cartography, Mathematical construction of projections: Cylindrical, conical & Zenithal.	1	0	0	5 Sessions
University Compulsory Course	Curriculum Training & Exposure	1	0	0	1
	COMMUNITY DEVELOPMENT ACTIVITIES	1	0	0	1
University Optional Course	Professional Activities	-	-	-	-
Total Credits		43			

SEMESTER II

Nature of Course	Course Name	C	T	D&T	P
MODERN AND CONTEMPORARY GEOGRAPHICAL THOUGHT (19th CENTURY ONWARDS)	German school, French school, British school and Russian scholars	3	3	0	0
	American School of geography paradigms and revolutions	3	3	0	0
	Philosophical pluralism	3	3	0	0
	10 practice sessions for German school, French school American School Philosophical pluralism	1	0	0	9 Sessions
CLIMATOLOGY AND OCEANOGRAPHY	composition and layered structure of atmosphere, atmospheric energy: air temperature, the energy balance, atmospheric pressure and pressure belts, wind circulation	4	4	0	0
	cyclones and anticyclones and classification of world climates	2	2	0	0

	Scope of oceanography; temperature, salinity dynamics of oceanic water, oceanic bottom relief, and coral reef	3	3	0	0
	10 practice sessions for composition and layered structure of atmosphere, cyclones and anticyclones and classification of world climates, oceanography	1	0	0	9 Sessions
PRINCIPLES AND THEORY OF ECONOMIC GEOGRAPHY - II	spatial structure of economy, geographical basis of economic activities	4	4	0	0
	theories of plant location	2	2	0	0
	general theory of landuse, dynamic agricultural location theory	3	3	0	0
	10 practice sessions for theories of plant location, general theory of landuse, dynamic agricultural location theory	1	0	0	9 Sessions
POPULATION GEOGRAPHY	Theories of population growth	3	3	0	0
	Migration	3	3	0	0
	India – population characteristics and relationship with development	3	3	0	0
	10 practice sessions for Theories of population growth Migration India – population characteristics and relationship with development	1	0	0	9 Sessions
PRACTICAL	Preparation of frequency table, graphical representation of data	2	1	0	1
	Locational analysis of urban centres, measurement of disparities, using latest data base	2	1	0	1
	Three dimensional diagrams	1	1	0	0
	10 practice sessions for Three dimensional diagrams	1	0	0	5 Sessions
University Compulsory Course	Curriculum Training & Exposure	1	0	0	1
	COMMUNITY DEVELOPMENT ACTIVITIES	1	0	0	1
	WOMEN RIGHTS & LAW(WRL)	1	1	0	0
University Optional Course	Professional Activities	-	-	-	-
Total Credits		44			

**JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY
JAIPUR**

SEMESTER I

PAPER-I

EVOLUTION OF GEOGRAPHICAL THOUGHTS (upto1800AD)

Credit9

Unit I (Herodotus, Eratosthenes, Posidonius, Strabo and Ptolemy)

Credit3

Beginnings and geosophical nature of geography; ancient Indian geographical thought (the puranic geography), Ancient classical period: contribution of Greek scholars (Herodotus and Eratosthenes), Greeko-Roman scholar (Posidonius), Roman scholars (Strabo and Ptolemy), and Chinese scholars

Unit II (Al-Biruni, Al Muquaddassi, Al Masudi and Al Idris, Ibn Battuta and Ibn Khaldun.)

Credit3

Implications of Dark Age in Europe, development and nature of geography during medieval period: contributions of Al-Biruni, Al Muquaddassi, Al Masudi and Al Idris, Ibn Battuta and Ibn Khaldun.

Unit III (Nathanael Carpenter, Varenus, Anton Friedrich Bushing, Immanuel Kant and Conrad Malte Brun)

(Credits: 3)

Impact of renaissance on geography: main inventions, discoveries and explorations, cosmographic tradition and position of geography among sciences: Sebastian Munster, Philip Cluverious, Nathanael Carpenter, Varenus, Anton Friedrich Bushing, Immanuel Kant and Conrad Malte Brun.

Recommended Text Books:

1. Koushik, S.D.: Bhougolik vichsrddharaye evm vidhi tantra.
2. B.C. Jat: Bhougolik chintan ka itihās.
3. S.D. Moury: Bhougolik chintan ka itihās.

Suggested Readings:

1. L.K. Sakaena & A.K. Tivadi: Bhougolik chintan.
2. Majid. H.: Evolution of Geographical Thought.
3. S.M. Jain: Bhougolik vichsrddharaye evm vidhi tantra.
4. Adhikari, S.: Fundamentals of Geographical Thought.
5. Bansal, Suresh chand: Bhougolik chintan ke mul tatv.

6. Dikshit, R.D.: Geographical Thought.

PAPER-I I

STRUCTURAL AND DYNAMIC BASIS OF GEOMORPHOLOGY

Credit: 9

UNIT I (Isostasy, Origin of the continents and oceans, earth movements, Mountain building theories) **(Credits: 4)**

Interior structure of the earth, thermal state of the earth's interior, Isostasy: views of Airy, Pratt, Hayford and Bowie, Joly and Holmes, Origin of the continents and oceans, earth movements: eperiogenic and orogenic- Mountain building theories of Jeffreys, Kober, Joly, Daly, Holmes and Plate Tectonics.

Unit II (major concepts in geomorphology)

(Credits: 3)

Definition, nature and scope of geomorphology, major concepts in geomorphology, Denudation: weathering, mass movements, erosion and sediment regimes, various models of landscape evolution: Davis, Penck, King, Hacks, Morisawa, Schumn.

Unit III (Topographies)

(Credits: 2)

Topographies: fluvial, glacial-periglacial, Aeolian, karst and coastal, element of slope and various models of slope development: Wood, Davis, Penck, King, and Strahler.

Recommended Text Books:

1. Singh, S.: Geomorphology.
2. Jat, B.C.: Bhu-Akrati vigyan.

Suggested Readings:

1. Spark, B.W.: Geomorphology.
2. Thornbury, W.D.: Principles of Geomorphology.
3. Stoddart, D.R.: Process and Form in Geomorphology.
4. Prasad, Gaytri: Bhu-Akrati vigyan.
5. Chorley, R.J. 1972: Spatial Analysis in Geomorphology.
6. Pitty, A.F.1971: Introduction to Geomorphology.
7. Sharma, H.S.1980: Perspectives in Geomorphology.

PAPER-III

PRINCIPLES AND THEORY OF ECONOMIC GEOGRAPHY -I

Credit: 9

UNIT I (agricultural typology-with special reference)

(Credits: 3)

Changing nature of economic geography, approaches to economic geography, agricultural typology- with special reference to: subsistence plantation agriculture, Mediterranean agriculture, mixed farming, commercial grain farming livestock rearing.

Unit II (Energy resources)

(Credits: 3)

Energy resources: detailed study of conventional and non-conventional energy resources, spatial patterns and supply problems, industries: iron & steel, aluminium industry, paper and pulp, cotton textile, chemical fertilizer and mobile.

Unit III (international trade, Economic region)

(Credits: 3)

Decision making process: location decision-behavioural view, international trade: major regional trade and economic integration block, major trends and patterns, economic region: concept and methods of delineation need of economic regionalization for area development and planning- economic regions of India.

Recommended Text Books:

1. Singh, Kashi Nath and Siddiqui, A.R.: Economic Geography.
2. Bengston, N.A. and Royen, M.V.: Fundamental of Economic Geography.
3. Alexander, J.W.: Economic Geography.

Suggested Readings:

1. Smith, D.M.1981: Industrial Location- An Economic, Geographical Analysis.
2. Wheeler, J.O. and Muller, O.P. 1995: Economic Geography.
3. James, O.W. and Peter, O.M. 1986: Economic Geography.
4. Lloyd, P.E. and Dicken, P. 1977: Location in space: A Theoretical Approach to Economic Geography.
5. Chapman, K and Walker, D.1991: Industrial Location: Principles and Policies.
6. Jarret, H.R. 1977: Geography of Manufacturing.

Paper IV

(Credits: 9)

Man and Natural Environment

Unit I (Definition and scope of environmental geography, man and environmental relationships)

(Credits: 3)

Definition and scope of environmental geography, its relation with other subjects, elements of the environment, man and environmental relationships: environmental determinism, possibilism and neo determinism, biosphere and its components, concept of ecology and ecological succession, types of ecosystems, energy flow in the ecosystem, soil system, geobiochemical cycles, major biomes of the world.

Unit II (Environmental crises)

(Credits: 3)

Environmental degradation and natural disasters, environmental crises: ozone depletion, green house gas effects, El-Nino, global warming and climate change, water scarcity, acid rain, sea level change, desertification, environmental pollutions: water, air, soil, noise and radioactive.

Unit III (Environmental quality)**(Credits: 3)**

Environmental quality, sustainable development, environmental management, soil and forest resources management, water management, wildlife conservation, biodiversity and its conservation, environmental awareness and education, international efforts of environmental conservation.

Recommended Text Books:

1. Gurjar, R.K. evm Jat, B.C.: Paryavrn Bhugol.
2. Sharma, P.D.: Paristhitiki evm Paryavrn.
3. Singh, Savindra: Environmental Geography.

Suggested Readings:

1. Kates, R.W. and Burton, I.: Geography, Resource and Environment.
2. Shrivastav, V.K. evm Rav, B.P: Paryavrn aur Paristhitiki.
3. Singh, Jagadish: Paryavrn evm Sanvikas.
4. Rao, K.L.1979: India's Water Wealth.
5. Tideman, E.M. 1996: Watershed Management.
- 6.

Paper V**(Credits: 5)****Practical Geography****Unit I (History of cartography, types of maps)****(Credits: 2)**

History of cartography, types of maps, enlargement and reduction and finding of area on map using planimeter, study of geological maps and preparation of their cross sections and interpretation, interpretation of weather maps and weather forecast, elementary trigonometry, classification of map projections and their specific uses.

Unit II (Mathematical construction of projections: cylindrical)**(Credits: 1)**

Mathematical construction of projections: cylindrical (equal area, Mercator's and Gall's stereographic); conical (with one standard parallel two standard parallels, Bonne's, polyconic and modified polyconic (international)).

Unit III (zenithal)**(Credits: 2)**

Mathematical construction of projections: zenithal (equidistant- polar and equatorial case, equal area polar and equatorial case, gnomonic- polar and equatorial case, stereographic- polar and equatorial case and orthographic- polar and equatorial case), and conventional: Sinusoidal and Mollweide, map policy of India and projections used for map output in India.

Recommended Text Books:

1. Sharma, J.P.: Pryogatmak Bhugol ki Ruprekha.
2. Chouhan, P.R.: Pryogatmak Bhugol.

Suggested Readings:

1. Khullar, D.R.: Essentials of Practical Geography.
2. Tivari, R.C. & Sudhakar, Tripathi: Prayogatmak Bhugol.
3. Singh, R.L. and Singh RPB 1991: Elements of Practical Geography.
4. Dickinson, G.C. 1973: Statistical Mapping and Mapping Statistics.

SEMESTER II

UNIVERSITY COMPULSORY PAPER

Women Rights & Law (WRL)

Credit-1

Objective: The paper aims at creating awareness as to importance and role of women in society through the medium of law. It also focuses on women welfare laws.

Unit – I: (Meaning of law)

Meaning of law ,Constitutional Safeguards for Women, Right to Equality (Art-14),Life & Personal Liberty, Right to Education (Art-21,21-A), Right against Sexual Exploitation (Art-23,24), Constitutional Remedies (Writs- Art-32-35), Participation in Panchayat and Municipalities, Marriage :

Conditions,Ceremonies,Registration, Restitution of Conjugal Rights, Judicial Separation, Void & Voidable Marriages, Legitimacy of Children of Void & Voidable Marriages, Punishment of Bigamy, Divorce Common Grounds for Divorce, No Petition for divorce within 1year of marriage, Divorced Person when may marry again, Maintenance: Wife, widowed daughter-in-law, Children, Amount of Maintenance , Interim Maintenance, Maintenance Provisions under Cr.PC, Adoption: Requisites of a valid adoption,Capacity of a male Hindu to take in adoption, Capacity of a female Hindu to take in adoption, Persons capable of giving in adoption, Persons who may be adopted, Effects of Adoption,.

(0.5Credit)

Unit – II :(Indian Penal Code)

Indian Penal Code, 1860 Right of Private Defence, Dowry Death, Abetment of Suicide, Cruelty by Husband or Relatives of Husband, Sex Selection & Causing Miscarriage, Hurt & Grievous Hurt, Wrongful Restraint & Confinement, Outraging the modesty of a woman, Kidnapping and Abduction, Offences regarding Prostitution, Rape, Bigamy, Adultery, Domestic Violence, Sex Determination Test - The Medical Termination of Pregnancy Act, 1971, The Pre-Conception and Pre-Natal Diagnostic Techniques Act, 1994, Reproductive Technologies: Meaning, Concept & Challenges of A.I, IVF & Surrogacy, Right of HIV/ AIDS Victims, Introduction to Consumer Protection Act , Tenancy Act, Right to Information Act, Motor Vehicles Act, Intellectual Property Rights, Act & Rules Maternity Benefits Act 1961.

(0.5 Credit)

Recommended Books:

1. Law relating to Women – S.R.Myneni
2. Law relating to Women – Dr. S.C. Tripathi

Suggested Readings:

1. Women and Law – Prof. Nomita Aggarwal
2. Women and Law – Dr. Manjula Batra
3. Women and Law – G.P. Reddy

Paper I

(Credits: 9)

Modern and Contemporary Geographical Thought (19th century onwards)

Unit I (German school, French school, British school and Russian scholars)

(Credits: 3)

Definition, scope, purpose and philosophy of geography, themes and basic concepts in geography; impact of Darwinism on geographical thoughts, Foundations of modern geography; German school (Humboldt, Ritter, Ratzel, Richthefen, Hettner, Schluter), French school (Blache, Brunhes) British school (Mackinder) and Russian scholars during the 19th century, focus on geography as a science of chorology and landscape morphology.

Unit II (American School of geography paradigms and revolutions)

(Credits: 3)

Rise of Anglo American School of geography: (Semple and Hartshorne) implications of geography as spatial science, relationship between geography, economics and planning (regional science) paradigms and revolutions; quantitative revolution, behaviouralism, radical geography, approaches of integrated geography and modern synthesis.

Unit III (Philosophical pluralism)

(Credits: 3)

Philosophical pluralism: empiricism, positivism, humanistic geography (idealism, phenomenologism and existentialism) and structuralism, post-modernism and various paradigms schools of geographical thought during post-modern period, dualism in geography: physical and human geography, systematic and regional geography environmentalism and possibilism, qualitative and quantitative, idiographic and nomothetic, Indian geography: development, emerging trends and professional challenges.

Recommended Text Books:

1. Koushik, S.D.: Bhogolik vichsrddharaye evm vidhi tantra.
2. B.C. Jat: Bhogolik chintan ka itihās.

Suggested Readings:

1. Dikshit, R.D.: Geographical Thought. A critical History of Ideas.
2. L.K. Sakaena & A.K. Tivadi: Bhogolik chintan.
3. Majid. H.: Evolution of Geographical Thought.
4. S.M. Jain: Bhogolik vichsrddharaye evm vidhi tantra.
5. Adhikari, S.: Fundamentals of Geographical Thought.

Paper II

(Credits: 9)

Climatology & Oceanography

Unit I (composition and layered structure of atmosphere, atmospheric energy: air temperature, the energy balance, atmospheric pressure and pressure belts, wind circulation)

(Credits: 3)

The basis of modern climatology, composition and layered structure of atmosphere, atmospheric energy: air temperature, the energy balance, atmospheric pressure and pressure belts, wind circulation: the planetary wind system, monsoon winds and local winds, adiabatic non- adiabatic processes, stability and instability, evaporation, factors affecting evaporation, humidity and its expression, clouds: types and characteristics, precipitation: types and world precipitation pattern.

Unit II (cyclones and anticyclones and classification of world climates)

(Credits: 3)

Air masses, fronts: cyclones (tropical and extra tropical) and anticyclones. Koppen and Thonhwaite classification of world climates; major climatic types: Equatorial, savanna, monsoon, Mediterranean and West European.

Unit III (Scope of oceanography; temperature, salinity dynamics of oceanic water, oceanic bottom relief, and coral reef)

(Credits: 3)

Scope of oceanography, horizontal and vertical distribution of temperature, salinity, factors and distribution patterns, dynamics of oceanic water: currents, sea waves, tides and tidal theories currents of Atlantic ocean, Pacific ocean, Indian ocean and other seas, oceanic bottom relief, (Atlantic, Pacific and Indian oceans) oceanics deposits, coral reef formation, atolls and coral islands, theories of coral reef formations, Man and oceans, marine resources-biotic and abiotic, (mineral and energy resources) and their utilization.

Recommended Text Books:

1. Singh, S.: Climatology.
2. Singh, S.: Oceanography.

Suggested Readings:

1. Goutam, Alka: Jalwayu evm samudra vigyan.
2. Gupta, S.L.: Jalwayu vigyan.
3. Sharma, R.C. and Vatal, M.: Oceanography.
4. Siddartha, K.: Oceanography.

Paper III

(Credits: 9)

Principles and Theory of Economic Geography – II

Unit I (Simple model of economy)

(Credits: 3)

Simple model of economy, environmental relations of the economy, spatial structure of economy, geographical basis of economic activities, evolution of world economic system.

Unit II (Manufacturing)

(Credits: 3)

Manufacturing: factors of production, theories of plant location: Weber's Least cost theory, Losch's economics of location, Isard's space economy Smith's spatial margins, Webber's uncertainty effect, industries- iron & steel, aluminium, paper and pulp, cotton textile, chemical industries- fertilizer, spatial variation in transport costs: location of transport routes and structure of transport costs.

Unit III (Spatial organization of land use)

(Credits: 3)

Spatial organization of land use: laws of return, concept of rent, Vonthunen's general theory of land use, dynamic agricultural location theory, Thunian location theory in the late 20th century world, classical place theory: range of good, threshold, central place system and hierarchy, Christaller's hexagonal trade areas, loss and uniform plain, modification of Christaller's model.

Recommended Text Books:

1. Singh, Kashi Nath and Siddiqui, A.R.: Economic Geography.
2. Goutam, Alka: Arthik Bhugol.

Suggested Readings:

1. Jat, B.C.: Arthik Bhugol.
2. Bengston, N.A. and Royen, M.V.: Fundamental of Economic Geography.
3. Alexander, J.W.: Economic Geography.
4. Kashinath Singh, Jagadish Singh: Arthik Bhugol ke mul tatv.
5. Siddhartha, K.: Economic Geography.

Paper IV

(Credits: 9)

Population Geography

Unit I(Theories of population growth)

(Credits: 3)

Population geography: definition, nature and scope and interdisciplinary study, theories of population growth- per -Malthusian views, Malthus theory, Marxist theory, Optimum population theory, demographic transition model, world population distribution, growth trends and determinants.

Unit II (Migration)

(Credits: 3)

Migration: history, theories, trends and patterns of international and internal migration, population dynamics: fertility and mortality- measurement, determinants and distribution, world population composition and characteristics, world population urbanization, trend pattern and challenges.

Unit III (India – population characteristics) (Credits: 3)

India – population characteristics and relationship with development; population control movement and policies; urbanization and population explosion; post independence development – reproductive and child health programme, contemporary issues – ageing of population; declining sex ratio; hiv/aids.

Recommended Text Books:

1. Chandna, R.C.: Population Geography.
2. Chandna, R.C.: Jansankhya Bhugol.

Suggested Readings:

1. Premi, M.K.: India's Population Heading towards a Billion.
2. Hassan, M.I.: Population Geography.
3. Bhende, Asha, A. and Kanitkar,,: Principles of Population Studies.
4. Garnier, J.B.: Geography of Population.

Paper V

(Credits: 5)

Practical Geography

Unit I (Preparation of frequency table, graphical representation of data) (Credits: 2)

Preparation of frequency table, graphical representation of data: histogram, frequency polygon, frequency curve and cumulative frequency curve or ogive, finding skewness, computation of mean, median and mode, dispersions: mean and standard deviation and computation of correlations: Karl Pearson's and Spearman's rank, coefficient of variability, theoretical basis of nearest neighbor analysis and exercises.

Unit II (Locational analysis of urban centres, measurement of disparities, using latest data base) (Credits: 2)

Locational analysis of urban centres, measurement of disparities, using latest data base: state, district, tehsil and development block level, preparation of choropleth, isopleths and isochrones map, population potential surface map, population pyramids map and cartograms.

Unit III (Three dimensional diagrams)

(Credits: 1)

Three dimensional diagrams: spherical and block pile, drawing of polygraphs, semi-log and log graphs, network analysis, trilinear chart, circular graph, climatograph, annual water budget graphs (surplus and deficiency).

Project Report: A candidate is to prepare project report of a village area for one week away from the Headquarter of the institution. The marking on the project report will be awarded by the external examiner in consultation with the internal examiner concerned. The project should be based on primary data obtained by the candidate. The data should be represented by suitable cartographic methods.

Recommended Text Books:

1. Sharma, J.P.: Pryogatmak Bhugol ki Ruprekha.
2. Chouhan, P.R.: Pryogatmak Bhugol.

Suggested Readings:

1. Khullar, D.R.: Essentials of Practical Geography.
2. Tivari, R.C. & Sudhakar, Tripathi: Prayogatmak Bhugol.
3. Singh, R.L. and SinghRPB 1991: Elements of Practical Geography.
4. Dickinson, G.C. 1973: Statistical Mapping and Mapping Statistics.