

**RASHTRASANT TUKADOJI MAHARAJ
NAGPUR UNIVERSITY
NAGPUR**

SYLLABUS

Master of Arts (Choice Based Credit System)

**Faculty of Social Science
Subject- Geography
(Post Graduate)**

Appendix-I

Scheme of teaching and examination under semester pattern Choice Based Credit System (CBCS) for M.A. in Geography.

Semester-I for M.A. in Geography										
Code .	Theory / Practical	Teaching scheme (Hours / Week)			Credits	Examination Scheme				
		Th	Pract	Total		Max.Marks		Total Marks	Minimum Passing Marks	
						External Marks	Internal Ass		Th	Pract
1.T-1	History Of Geographical Thoughts (Core)	4	-	4	4	80	20	100	40	
1.T-2	Oceanography (Core)	4	-	4	4	80	20	100	40	
1.T-3	Geomorphology (Core)	4	-	4	4	80	20	100	40	
1.T-4	Biogeography (Core)	4	-	4	4	80	20	100	40	
1.P-1	Practical-I (Core)	-	8	8	4	80	20	100	-	40
1.P-2	Practical-II (Core)	-	8	8	4	80	20	100		40
Seminar	Seminar	2	-	2	1		25	25	10	
	TOTAL	18	16	34	25	480	145	625	170	80

Semester-II for M.A. in Geography										
Code	Theory / Practical	Teaching scheme (Hours / Week)			Credits	Examination Scheme				
		Th	Pract	Total		Max.Marks		Total Marks	Minimum Passing Marks	
						External Marks	Internal Ass		Th	Pract
2.T-1	Research Methodology (Core)	4	-	4	4	80	20	100	40	
2.T-2	Environmental Geography (Core)	4	-	4	4	80	20	100	40	
2.T-3	Climatology (Core)	4	-	4	4	80	20	100	40	
2.T-4	Geography Of India (Core)	4	-	4	4	80	20	100	40	
2.P-1	Practical-III (Core)	-	8	8	4	80	20	100	-	40
2.P-2	Practical-IV (Core)	-	8	8	4	80	20	100		40
Seminar	Seminar	2	-	2	1		25	25	10	
	TOTAL	18	16	34	25	480	145	625	170	80

Semester-III for M.A. in Geography										
Code	Theory / Practical	Teaching scheme (Hours / Week)			Credits	Examination Scheme				
		Th	Pract	Total		Max.Marks		Total Marks	Minimum Passing Marks	
						External Marks	Internal Ass		Th	Pract
3.T-1	Economic Geography(Core)	4	-	4	4	80	20	100	40	
3.T-2	Geography Of Rural Settlement(Core)	4	-	4	4	80	20	100	40	
3.T-3	Natural Disaster Management (Core)	4	-	4	4	80	20	100	40	
3.T-4	Urban Geography OR Agricultural Geography (Elective)	4	-	4	4	80	20	100	40	
3.P-1	Practical-V (Core)	-	8	8	4	80	20	100	-	40
3.P-2	Practical-VI (Core)	-	8	8	4	80	20	100		40
Seminar	Seminar	2	-	2	1		25	25	10	
	TOTAL	18	16	34	25	480	145	625	170	80

Semester-IV for M.A. in Geography										
Code	Theory / Practical	Teaching scheme (Hours / Week)			Credits	Examination Scheme				
		Th	Pract	Total		Max.Marks		Total Marks	Minimum Passing Marks	
						External Marks	Internal Ass		Th	Pract
4.T-1	Population Geography (Core)	4	-	4	4	80	20	100	40	
4.T-2	Geography Of Tourism(Core)	4	-	4	4	80	20	100	40	
4.T-3	Regional Planning & Development (Core)	4	-	4	4	80	20	100	40	
4.T-4	Social Geography OR Geography Of Water Resources (Elective)	4	-	4	4	80	20	100	40	
4.P-1	Practical-VII (Core)	-	8	8	4	80	20	100	-	40
4.P-2	Practical-VIII(Core)	-	8	8	4	80	20	100		40
Seminar	Seminar	2	-	2	1		25	25	10	
	TOTAL	18	16	34	25	480	145	625	170	80

Pattern of Question Paper

Examination P.G.Level Geography

M.A.(Part-I)- Semester-I & II

M.A.(Part-II)- Semester-III & IV

Time – Three Hours

Full Marks-80

Instructions- 1) All Questions are compulsory.

2) All Question carry equal marks.

Que.No.1. Long answers question with Internal Choice from any Unit for 16 Marks of equal marking

Que.No.2. Long answers question with Internal Choice from any Unit for 16 Marks of equal marking

Que.No.3. Two Short answers question with Internal Choice from any Unit for $8 \times 2 = 16$ Marks of equal marking.

Que.No.4. Two Short answers question with Internal Choice from any Unit of $8 \times 2 = 16$ Marks. of equal marking.

Que.No.5. Four very short answer question without internal choice $4 \times 4 = 16$ Marks.

Note: 1) One question from each unit.

2) Question No.5 should be asked from all 4 units.

**Semester-I
Paper-I (1.T-1)**

Total Marks-100

Semester Examination – 80 Marks

Internal Assessment- 20 Marks

4 Credits

Time: 3 hours

History of Geographical Thoughts (Core)

Unit-I

The field of geography, its place in the classifications of sciences, geography as a social science and natural science. Selected concepts in Philosophy of geography, distributions, relationships, interaction, areal differentiation and spatial organization.

Unit-II

Contributions of different scholars during ancient medieval and modern period. Geography in the 20th century: Status of Indian Geography, future of Geography, relating to the development of geographic thought with special reference to changing views on man-environment relationship.

Unit-III

Dualism in geography, systematic and regional geography, physical and human geography, the myth and reality about dualism, Regional geography, concept of region and regionalization and the regional method.

Unit-IV

Scientific explanations: routes to the scientific explanation (Inductive/ Deductive) types of explanation cognitive description, cause and effect, temporal, functional, ecological system, laws, theories and models, the quantitative revolution.

Suggested Reading:

1. Albert, Ronald, Adams, John S. Gould, Peter (1971) Spatial Organization, the geographers view of the worlds, Prentice Hall. N. J.
2. Ali, S.M. (1966): The geography of Purana's, People Publishing House.
3. Amedeo, Douglas (1971): An Introduction of Scientific Reasoning in Geography, John Wiley U.S.A.
4. Cole, J.P. And King, C.A.M. (1968): Quantitative Geography, John Wiley and sons, London
5. Dikshit, R.D. (ed) (1994): The Arts and Science of Geography- Integrated readings, Prentice Hall of India, New Delhi
6. Hartshorne, R (1959): Perspectives on Nature of Geography, Rand McNally and Co.
7. Husain, M. (1984): Evolution of Geographical Thought, Rawat Publication Jaipur
8. Kothari, C.R. (1993): Research Methodology, Methods and Techniques Wiley Eastern Ltd. New Delhi.
9. Mahmood Aslam (1977): Statistical methods in geographical studies, Rajesh Publication New Delhi.
10. Taylor, Peter (1977) Quantitative Methods in Geography, Houghton and Maffin Co. Boston.
11. Yeats, M. (1974): An introduction to quantitative Analysis in Human Geography, Mcgraw Hill Book CO. New York.
12. Minshull R. (1970): The changing nature of geography, Hutchinson University Library London.
- 13^ण कौशिक एस.डी.: भौगोलिक विचारधाराएं एवं विधी तंत्र
- 14^ण सिंग उजागर: भौगोलिक चिंतन का इतिहास
- 15^ण त्रिपाठी व्ही.,विरले आर.: भौगोलिक चिंतन का विकास एवं विधी तंत्र
- 16^ण श्रिवास्तव व्ही.के.: भौगोलिक चिंतन के आधार

**Semester I
Paper II (1.T-2)**

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

4 Credits

Time: 3 hours

OCEANOGRAPHY (Core)

Unit I

Nature and Scope of Oceanography, History of Oceanography, Distribution of land and water, major features of ocean basins, Continental margin and deep ocean basins

Unit II

Physical and comical properties of sea water: distribution of temperature and salinity of oceans and seas. Surface currents- currents of the Atlantic, Pacific and Indian Ocean, thermohaline, waves and tides

Unit III

Major marine environments – coastal, estuaries, delta's, barrier island, rocky coasts- open reefs, continental shelf, continental slope and deep, pelagic environment and floor of the ocean basis,.

Unit IV

Applied Oceanography – impact of human on the marine environment law of the sea, exclusive economic zone, food and mineral resources of the sea, marine deposits and formation of coral reefs, oceans and world geo-politics.

Suggested Readings

1. David Richard, J. A. : Oceanography – And Introduction to the Marine Environment Wm. C. Brown Iowa, 1986.
2. Garrison T.: Oceanography – And Introduction to Marine Science, Books/Cole, Pacific Grove, USA, 2001.
3. King, C. A. M.: Oceanography for Geographers, 1962.
4. Savindra Singh: Oceanography
5. Lal: Oceanography
6. डा. गौतम अलका, जलवायु विज्ञान और सागर विज्ञान
7. पांचाल के.के.: समुद्र विज्ञान
8. गर्ग एच.एस.: समुद्र विज्ञान के आधार

Semester I
Paper III (1.T-3)

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

4 Credits

Time: 3 hours

GEOMORPHOLOGY (Core)

Unit I

Nature and Scope of Geomorphology, Geological structures and land forms, uniformitarianism, multi cyclic and polygenetic evolution of land scapes, environmental change – climatic change and geochronological methods – documentary evidence, artifacts, major horizons, dendochronology, pollen, thermoluminescence.

Unit II

Earth movements– epeirogenic, orogenic, and cymatogenic, earth movements. Forces of Crustal Instability, Isostasy, plate tectonics, seismicity, vulcanicity, orogenic, structures with reference to the evolution of Himalaya.

Unit III

Exogenic Processes: concept of gradation, agents and processes of gradation, causes, types and classification of weathering, mass movement erosional and depositional processes and resultant land forms, slope evolution – down wearing, parallel retreat, replacement models.

Unit IV

Geomorphic Processes: dynamics of fluvial, glacial, Aeolian, marine karst processes and resulting land forms complexities in geomorphic processes, Application of geomorphic mapping terrain evaluation, land capability of land suitability classification, urban geomorphology, environmental geomorphology, geomorphic hazards,

Suggested reading

1. Chorley, R. G.: Spatial Analysis in Geomorphology, Methuen, London, 1972.
2. Cooke, R. U. and Doornkamp, J. C.: Geomorphology in Environmental Management – A Introduction, Clarendon Press, Oxford, 1974.
3. Dr. Kale, V. S. and Gupta Abhijit : Introduction to Geomorphology.
4. Sharma H. S. (Ed.): Perspective in Geomorphology, Concept, New Delhi, 1980.
5. Singh Savindra: Geomorphology, Prayag Publication, Allahabad, 1998.
6. सिंग सविंद्र, भू आकृती विज्ञान प्रयाग प्रकाशन, अलाहाबाद.
7. जाट: भू आकृती विज्ञान
8. पुराणीक म.गो.: भूरूपशास्त्राची ओळख

Semester I
Paper IV (1.T-4)

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

4 Credits

Time: 3 hours

BIOGEOGRAPHY (Core)

Unit-I

Biogeography – Development and scope; Biosphere - definition, nature and composition; Environment, Habitat and Plant-animal association.

Unit-II

Biogeochemical cycles- the hydrological cycle, the carbon cycle, the oxygen cycle, the nitrogen cycle, the phosphorous cycle and the sediment cycle.

Elements of plant geography, distribution of forests and major communities; Plant successions in newly formed landforms; Examples from flood plains and glacialfore fields; National Forest Policy of India; Conservation of Biotic Resources.

Unit-III

Ecosystem - Meaning, types, components and functioning of ecosystem; Evolution of living organism and factors influencing their distribution on the earth; Biomes- Meaning and types.

Unit-IV

Bio-geographical realms: Zoogeography and Zoogeographical realms; Zoogeography and its Environmental Relationship; Palaeobotanical and Palaeo climatological records of environmental change in India.

Recommended Readings:

1. Agarwal, D.P. (1992), Man and Environment in India Through Ages, Book & Books.
2. Bradshaw, M.J. (1979), Earth and Living Planet, ELBS, London.
3. Cox, C.D. and Moore, P.D. (1993), Biogeography: An Ecological and Evolutionary Approach (Fifth Edition), Blackwell.
4. Gaur, R. (1987), Environment and Ecology of Early Man in Northern India, R.B. Publication Corporation, New Delhi.
5. Hoyt, J.B. (1992), Man and the Earth, Prentice Hall, U.S.A.
6. Huggett, R.J. (1998), Fundamentals of Biogeography, Routledge, U.S.A.
7. Illics, J. (1974), Introduction to Zoogeography, Mcmillian, London.
8. Khoshoo, T.N. and Sharma, M. (eds.) (1991), Indian Geosphere-Biosphere, Har-Anand Publication, Delhi.
9. Lapedes, D.N. (ed.) (1974), Encyclopedia of Environmental Science, McGraw Hill.
10. Mathur, H.S. (1998), Essentials of Biogeography, Anuj Printers, Jaipur.
11. Pears, N. (1985), Basic Biogeography. 2nd ed. Longman, London.
12. Simmon. I.G.(1974), Biogeography, Natural and Cultural, Longman, London.
13. Tivy, J. (1992), Biogeography: A Study of Plants in Ecosphere, 3rd Edition. Oliver and Boyd, U.S.A.

Semester-I
PAPER-V (1.P-1)

Semester Practical Examination Marks: 80

Time- 4 hours

Internal Assessment Marks: 20

PRACTICAL-I (Core)

1. Morphometric measurement

(A) Graphical methods. (10 Marks)

- i) Serial Profile
- ii) Superimposed Profile
- iii) Projected Profile
- iv) Composite Profile
- v) Longitudinal Profile
- vi) Transverse Profile

(B) Slope analysis by using the following methods. (15 Marks)

- i) Went worth's method
- ii) Raisz and Henry's method.
- iii) G. H. Smiths method

(C) Drawing and interpretation of following graphs. (10 Marks)

- i) Hypsographic curve.
- ii) Clonographic curve
- iii) Altimetric Frequency graph
- iv) Area Height Diagram

(D) Drainage basin analysis (15 Marks)

- 1. Determination of stream order
- 2. Stream length and determination of basin area
- 3. Drainage density and texture of topography
- 4. Slope gradient of drainage basin

(E) Preparation of block diagram from the following relief features. (10 marks)

- i) Mountain
- ii) River Course

(F) Viva (10 Marks)

(G) Practical Record (10 Marks)

Internal Assessment:

Test Exam (20 Marks)

Note- The batch of Practical Class should not be exceeding 10 (Ten) Students.

Semester-I
PAPER-VI (1.P-2)

Semester Practical Examination Marks: 80

Time- 4 hours

Internal Assessment Marks: 20

PRACTICAL-II (Core)

1. Basics of computer system: Application in geographical studies
Theoretical aspect of computer system (15 marks)
Preparation of thematic map by computer (10 marks)
2. Study of topographical maps (20 marks)
a. Interpretation of Topographical maps -Aspects of Physical and Human Environment

(Note: Teachers should select Topographical maps from plains, plateaus, mountains and coastal regions of India)

3. Measurement of area by graphical and instrumental methods. (10 marks)
4. Viva-voce (15 marks)
5. Practical Record (10 marks)

Internal Assessment:

Test Exam (20 Marks)

Note- The batch of Practical Class should not be exceeding 10 (Ten) Students.

CERTIFICATE

Name of the College - _____

This is to certify that this practical record is the Bonafide Work of Shri./ Smt./ Ku. _____
_____ Class _____

During the academic year _____, He/She attended/ not attended the field work/ study tour prescribed by Rashtrasant Tukdoji Maharaj Nagpur University Nagpur.

Signature of the teacher who taught the examinee

- 1) _____
- 2) _____
- 3) _____

Head of the Department
(Seal or stamp)

Date:

Note: In the absence of above certificate, Candidate will not be allowed to appear in the Practical examination.

Suggested Reading

1. Aroff S. (1989): Geographic information system: Management Perspective, DDI Publication Ottawa.
2. Burrough P.A. (1986): Principles of Geographic Information system for Land Resource Management, Oxford University, Press, New York
3. Barrett E.C. And L.F. Curtis (1992): Fundamentals of Remote Sensing and Air photo Interpretation, McMillan New York
4. Campbell J (1989): Introduction to Remote Sensing Guilford, New York
5. Clendinning J (1985): Principles and use of Surveying Instruments 2nd edition Block-A
6. Curran (1985): Principles of Remote Sensing Long-man, London
7. Fraser Taylor D.R. (1991): Geographic in Information system Pergamum Press Oxford 1991
8. Hord.R.M. (1989): Digital Image processing of remotely sensed data Academic New York
9. Hotine, Major M. (1935): The re-triangulation of Great Britain Empire Survey Review
10. Luder D. (1955): Aerial Photography Interpretation: Principles and Application McGraw Hill , New York
11. Mark S. Monmonier (1982): Computer assisted geography, Prentice Hall, Englewood Cliff, New Jersey
12. Macquire D.G.M.F. Good child and D.W. Rhind (eds)(1991): Geographic information system: Principles and Application Taylor & Francis Washington.
13. Mishra R.P. And Ramesh A (1986): Fundamentals of Cartography.
14. McMillan Co. New Delhi.
15. Pal. S.K. (1968): Statistic for Geo scientist- Techniques and Application, Concept, New Delhi.
16. Peuquet D Jand D.F. Marble (1990): Introductory teaching in Geographic Information System Taylor & Francis Washington
17. Pratt W.K. (1978): Digital Image Processing , Wiley New York
18. Rao D.P. (ed)(1998): Remote Sensing for Earth Resources, Association of Exploration Geophysicist.
19. Star J and J Estes (1994): Geomorphic Information System: An introduction Prentice Hall Englewood Cliff, New Jers Thomas M. Lilles and Ralph W Kefer (1994): Remote Sensing and Image Interpretation John Wiley & son , New York.

Semester II
Paper I (2.T-1)

Marks 100

Semester Examination = 80 Marks

Internal Assessment =20Marks

Time: 3 hours

RESEARCH METHODOLOGY (Core)

Unit I

Research meaning, types, classification and significance, significance of library in research: literature survey – review of literature, research design – need, process, features, types, formulation of research problem, hypothesis – formulation, need, process, features, types, testing of hypothesis, research plan.

Unit II

Methods of Data Collection – Characteristics of geographical data – measurement of data: scales used, primary and secondary data – sources of data: traditional and modern – data compilation. Primary data collection: census and sampling method – types of sampling – spatial adaptation of sampling techniques – points, lines and area sampling, data collection through field work and questionnaires.

Unit III

Data Processing and Analysis: Classification and Tabulation –through traditional and modern techniques, cartographic representation of data, descriptive and inferential statistics – functional and spatial interpretation of the results, the computer its role in research process.

Unit IV

Preparation of Project Report: Significance, layout of the writing a research report - introduction to the problem- objectives and hypothesis, research plan, result of analysis – summary of finding in the light of the hypothesis, conclusions, writing of references, bibliography - traditional and modern, awareness of plagiarism.

Suggested reading

1. Kothari, C. R., Research Methodology, New Age International Publishers, New Delhi, 2009.
2. Bhandarkar, Research Methodology in Social Sciences,
3. Mishra H.N., Singh B.P., Research Methodology in Geography, Rawat Publication Jaipur,
4. Montello, D. and Sutton, P. An Introduction to scientific research method in geography and environmental studies, Sage Publication, 2008.
5. King, L. T., Statistical Analysis in gerography, Englewood cliffs province- hall
6. कार्लेकर, श्रीकांत, काळे मोहन, भूगोलशास्त्रातील संशोधन पद्धती, डायमंड प्रकाशन, पुणे, 2007.
7. यादव हिरालाल, भाोध प्रविधी एवं मात्रात्मक भूगोल, राधा प्रकाशन नई दिल्ली, 2003.

Semester II
Paper II (2.T-2)

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

4 Credits

Time: 3 hours

Environmental Geography (Core)

Unit-I

Geography as a study of Environment, concepts and components of environment, Development of environmental studies. Approaches to environmental studies, concepts of ecology and ecosystem. Man-environment relationship, Environmental movements- Chipko Andolan, Narmada dam Andolan, Si Lent Valley Movement.

Unit-II

The problems of causes of environmental degradation, deforestation and man animal conflicts in India, Soil Erosion, Soil Exhaustion, Desertification, air pollution, water pollution., Water borne diseases and diseases due to air pollution, impact of pesticides and fertilizers, impact of illegal sand mining and coal mining. Disposal of solid waste in urban areas.

Unit-III

Environmental Management: Environmental education, preservation of ecological balance at local regional and National level , Major environmental policies and programme. Sample studies: Ganga Action Plan, Tiger Projects in Maharashtra, Drinking water in Rural Areas, Environment laws.

Unit-IV

Emerging Environmental issues: Population explosion, food security, global warming, conservation of Biodiversity act 2002., Sustainable development, Impact of irrigation project on environment, project impact assessment Impact of irrigation project on displacement of people, problem of rehabilitation of people, Environmental impact assessment notification 1994.

Suggested reading:

1. Singh savindra: Environment Geography, Prayag Parakashan
2. Lal: Environment Geography
3. गुप्ता आर.: पर्यावरण विज्ञान
4. चौधरी बी.एल.: पर्यावरण विज्ञान
5. तिवारी विजय कुमार: पर्यावरण विज्ञान
6. तिवारी के.एल., जाधव एस.के.: पर्यावरण विज्ञान
- 7.

Semester II
Paper III (2.T-3)

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

4 Credits

Time: 3 hours

CLIMATOLOGY (Core)

Unit I

Nature and Scope of climatology and its relationship with meteorology, composition, mass and structure of atmosphere. Insolation: heat balance of the earth, greenhouse effect, vertical and horizontal distribution of temperature. Atmospheric pressure and winds, jet stream. Atmospheric moisture: humidity, evaporation, condensation, precipitation: formation, types, word pattern of rainfall.

Unit II

Concept of air masses and atmospheric disturbances, ocean atmospheric interaction-EL Nino, southern oscillation (ENSO), and La Nino monsoon winds, norwesters, cyclones - Tropical and temperate, climate of India and its control.

Unit III

Climatic Classification: Koppen's Thornwaite's and genetics. Major climates of the world – tropical, temperate, polar desert and mountain climate.

Unit IV

Climatic Changes: evidences, possible causes, theories of climatic change, global warming, environmental impacts and society responses. Applied Climatology: impact of climate on agricultural activities-, soil, crop distribution, crop yield, irrigation scheduling, drought, flood, agro-climatic regions of India, house type, health.

Suggested Reading

1. Barry, R. G. and R. J. Chorley, Atmosphere, Weather and Climate, Methuaan & col.
2. Critchfield H. J., General Climatology.
3. Trewartha, G. T., An Introduction to Climate.
4. Subrahmanyam, V. P. General Climatology Vo. 3 & 4 Heritage Publication New Delhi.
5. Savindra Singh, Climatology
6. Lal, Climatology
7. लाल डी.एस.: जलवायु विज्ञान
8. गौतम अलका: जलवायु विज्ञान

Semester II
Paper IV (2.T-4)

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

4 Credits

Time: 3 hours

GEOGRAPHY OF INDIA (Core)

Unit-1

Physical Setting: Space relationship of India with neighboring countries; Structure and relief; Drainage system and watersheds; Physiographic regions; Mechanism of Indian monsoons and rainfall patterns, Tropical cyclones and western disturbances; Floods and droughts; Climatic regions; Natural vegetation; Soil types and their distributions.

Unit-II

Resources: Land, surface and groundwater, energy, minerals, biotic and marine resources; Forest and wild life resources and their conservation.

Agriculture: Green revolution and its socio-economic and ecological implications; Agro and social-forestry; Dry farming and its significance; Livestock resources and white revolution; aqua - culture; sericulture, apiculture and poultry; Agricultural regionalization; agro-climatic zones; agro- ecological regions.

Unit-III

Industry: Locational factors of cotton, jute, textile, iron and steel, aluminium, fertilizer, paper, chemical and pharmaceutical, automobile, cottage and agro-based industries; Industrial regionalization; New industrial policies; Special Economic Zones; Tourism including eco-tourism.

Transport, Communication and Trade: Road, railway, waterway, airway and pipeline networks and their complementary roles in regional development; Growing importance of ports on national and foreign trade; Developments in communication and information technology and their impacts on economy and society; Indian space programmes.

Unit-IV

Demographic Scenario: Growth, distribution and density of population; Demographic attributes: sex-ratio, age structure, literacy rate, work-force, dependency ratio, longevity; migration (inter-regional, intra-regional and international) and associated problems; Demographic dividend: Recent trends in demographic transition; Population problems and policies.

Contemporary Issues: Ecological issues: environmental hazards: landslides, earthquakes, tsunamis, floods and droughts, epidemics; Issues relating to environmental pollution; Principles of environmental impact assessment and environmental management; Population explosion and food security; Environmental degradation; Deforestation, Desertification and Soil erosion;

Regional disparities in economic development; Concept of sustainable growth and development; Environmental awareness; Linkage of rivers; Globalization and Indian economy.

Recommended Books:

1. Centre for Science & Environment (1988), State of India's, Environment, New Delhi.
2. Deshpande, C.D. (1992), India: A Regional Interpretation, ICSSR & Northern Book Centre.
3. Dreze, Jean & Amartya Sen (ed.) (1996), India's Economic Development and Social Opportunity, Oxford University Press, New Delhi.
4. Gautam, Alka (2009), Advanced Geography of India, Second Edition, Sharda Pustak Bhawan, Allahabad.
5. Husain, Majid (2008), Geography of India, Tata McGraw-Hill Publishing Co. Ltd., New Delhi.
6. Khullar, D.R. (2006), India: A Comprehensive Geography, Kalyani Publishers, New Delhi.
7. Kundu A. and Raza, Moonis (1982), Indian Economy: The Regional Dimension. Spectrum Publishers, New Delhi.
8. Robinson, Francis (1989), The Cambridge Encyclopedia of India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan & Maldives, Cambridge University Press, London.
9. Singh R.L. (ed.) (1971), India-A Regional Geography, National Geographical Society, India, Varanasi.
10. Spate, OHK & Learmonth, ATA (1967), India & Pakistan, Methuen, London.
11. Tirtha R. & Krishan, Gopal (1996), Emerging India, Reprinted by Rawat Publications, Jaipur.
12. Tiwari, R.C. (2010), Geography of India, Sixth Edition, Prayag Pustak Bhawan,

Semester-II

PAPER-V (2.P-1)

Semester Practical Examination Marks: 80

Time- 4 hours

Internal Assessment Marks: 20

PRACTICAL-III (Core)

1. Preparation and interpretation of the following maps and diagrams (4 Periods)
Group A (20 marks)
 - i. Equivariable
 - ii. Equipluves
 - iii. Frequency graph
 - iv. Rainfall dispersion diagram
 - v. Running mean
 - vi. Wind rose and compound wind roseGroup B (20 Marks)
 - i. Water budget graph
 - ii. Climatograph
 - iii. Hythergraph
 - iv. Taylor's Climograph
 - v. Compound Columnar digram
 - vi. Index of aridity and index of moisture
2. Study of Indian daily weather map and weather analysis (20 Marks- 2 Periods)
Study and interpretation of at least four maps of India pertaining to-
 - (a) S.W.Monsoon Season
 - (b) Summer season
 - (c) Transition Period
 - (d) Cyclonic
3. Viva (10 marks)
4. Practical record (10 marks)

Internal Assessment Marks:

Test Examination

(20 Marks)

Note- The batch of Practical Class should not be exceeding 10 (Ten) Students.

Semester-II

PAPER-VI (2.P-2)

Semester Practical Examination Marks: 80

Time- 4 hours

Internal Assessment Marks: 20

PRACTICAL-IV (Core)

2. Advanced techniques of spatial analysis:

(2 periods)

(a) **Remote sensing**

(20 marks)

Definition of remote sensing. Remote sensing platforms and scanners. Electromagnetic radiation and physics of remote sensing. Aerial remote sensing data products- Aerial photographs, types, scales, displacement, parallax, aerial mosaics, radial line methods (graphical) (exercise) air photo interpretation, instruments used, elements of photo interpreted exercises.

(b) **Geographical information system**

(20 marks)

Introduction to GIS. Fundamental of GIS- Spatial concepts and spatial relationships. Data models and structure raster and vector. Integration procedure for spatial and non-spatial data. Scanning and digitization exercise. Editing and topology creation. Entering non-spatial data. Thematic mapping

3. Excursion:

(15 Marks- 2 Periods)

Visit to any plain, Plateau, hilly, desert and coastal area.

(A) Collection of data through interview techniques, Processing of raw data and tabulation of data for any research problem.

(B) Writing of report of the selected research problem on basis of research methodology by incorporating research design.

5. Viva-voce

(15 Marks)

6. Practical Record.

(10 Marks)

Internal Assessment Marks:

Test Examination

(20 Marks)

Note- The batch of Practical Class should not be exceeding 10 (Ten) Students.

CERTIFICATE

Name of the College - _____

This is to certify that this practical record is the Bonafide Work of Shri./ Smt./ Ku. _____
_____ Class _____

During the academic year _____, He/She attended/ not attended the field work/ study tour prescribed by Rashtrasant Tukdoji Maharaj Nagpur University Nagpur.

Signature of the teacher who taught the examinee

- 1) _____
- 2) _____
- 3) _____

Head of the Department
(Seal or stamp)

Date:

Note: In the absence of above certificate, Candidate will not be allowed to appear in the Practical examination.

Suggested Reading

1. Aronoff S. (1989): Geographic information system: Management Perspective, DDI Publication Ottawa.
2. Burrough P.A. (1986): Principles of Geographic Information system for Land Resource Management, Oxford University, Press, New York
3. Barrett E.C. And L.F. Curtis (1992): Fundamentals of Remote Sensing and Air photo Interpretation, McMillan New York
4. Campbell J (1989): Introduction to Remote Sensing Guilford, New York
5. Clendinning J (1985): Principal and use of Surveying Instruments 2nd edition Block-A
6. Curran (1985): Principals of Remote Sensing Long-man, London
7. Fraser Taylor D.R. (1991): Geographic in Information system Pergamum Press Oxford 1991
8. Hord.R.M. (1989): Digital Image processing of remotely sensed data Academic New York
9. Hotine, Major M. (1935): The re-triangulation of Great Britain Empire Survey Review
10. Luder D. (1955): Aerial Photography Interpretation: Principals and Application Mcgraw Hill , New York
11. Mark S. Monmoni er (1982): Computer assisted geography, Prentice Hall, Englewood Cliff, New Jersey
12. Macquire D.G.M.F. Good child and D.W. Rhind (eds)(1991): Geographic information system: Principals and Application Taylor & Francis Washington.
13. Mishra R.P. And Ramesh A (1986): Fundamentals of Cartography.
14. McMillan Co. New Delhi.

15. Mitra R.P. And Ramesh: Fundamentals of Geography revised Edition, Concept Publication New Delhi
16. Monkhouse F.J. (1971) Maps and Diagram Methuen
17. Negi, balbir singh (1995): Practical Geography third revised edition Kedarnath and Ramnath Meerut & Delhi

18. Pal. S.K. (1968): Statistic for Geo scientist- Techniques and Application, Concept, New Delhi.
19. Peuquet D Jand D.F. Marble (1990): Introductory teaching in Geographic Information System Taylor & Francis Washington
20. Pratt W.K. (1978): Digital Image Processing , Wiley New York
21. Rao D.P. (ed)(1998): Remote Sensing for Earth Resources, Association of Exploration Geophysicist.Hyderabad
22. Robinson, A.H.et al (1995) : Element of Cartography, John Wiley & Sons USA
23. Sandover J.A. (1961) : Plane Surveying Arnold
24. Sarkar A.K. (1977): Practical Geography: A systematic Approach Oriental Longman Calcutta
25. Singh R.L. And Dutt P.K. (1968): Elements of Practical Geography, Students Friends, Allahabad
26. Star J and J Estes (1994): Geomorphic Information System: An introduction Prentice Hall Englewood Cliff, New Jers
27. Singh and Kanojiya (1972): Map work and practical Geography central Book Dept, Allahabad
28. Thomas M. Lilles and Ralph W Kefer (1994): Remote Sensing and Image Interpretation John Wiley & son , New York.

**Semester III
Paper I (3.T-1)**

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

4 Credits

Time: 3 hours

ECONOMIC GEOGRAPHY(Core)

Unit I

Scope, Content and recent trends in economic geography, relation of economic geography with economics. Classification of economies: sector of economy (Primary, Secondary and Tertiary). Factors of location of economic activities: physical social economic and cultural.

Unit II

Classification of industries: resource based and foot loose industries. Theories of industrial location – weber, losch and Isard. Case studies of selected industries – iron and steel, oil refinery and petrochemical, engineering, textile.

Unit III

Modes of transportation and transport cost: their significance and characteristics, accessibility and connectivity: international, inter and intra regional: comparative cost advantages, transport network. Pattern of movement: the type, patterns of movement & transport modes, Simple model of interaction transportation network: the function, movement geometry.

Unit IV

Transport policy and planning, transport development in developing countries, urban transportation: growth and problems of urban transportation, transport and environmental degradation, vehicular pollution and congestion, alternatives to transport system in mega cities of India, national highway development and planning in India.

Suggested reading

1. Alexander, Economic Geography,
2. Hurst M. E. (Ed.), Transportation Geography, Mc Graw Hill, 1974.
3. Mamoria C. B. , Economic Geography,
4. Rostov, W. W., The Stages of Economic Growth, CPU, London, 1960.
5. Sharma and Countino, Economic Geography,
- 6^० बंसल राजीव: आर्थिक भूगोल
- 7^० यादव उमेश: आर्थिक भूगोल
- 8^० सिसोदिया एम.एस.: आर्थिक भूगोल

**Semester III
Paper II (3.T-2)**

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

Time: 3 hours

GEOGRAPHY OF RURAL SETTLEMENT(Core)

Unit I

Nature scope significance and development of settlement geography. Approaches to rural settlement geography, histo-genesis of rural settlement: Spatio-temporal dimension and sequent occupance. Distribution of rural settlement: size and spacing of rural settlement.

Unit II

Types, forms and pattern of rural settlements: cause and effect, functional classification of rural settlements, rural service centre: their nature hierarchy and functions, rural urban fringe – structure, characteristic and functions.

Unit III

Social issues in rural settlements: poverty, housing and shelter, deprivation and inequality, empowerment of woman, Health care, rural urban interaction. Environmental issues in rural settlements: access to environmental infrastructure – water supply, sanitation, drainage, occupational health hazards.

Unit IV

Cultural landscape elements in rural settlements in different geographical environment with special reference to India: house types and field patterns Origin, evolution, size, socio-spatial structure of Indian villages. Rural development planning in India, Integrated rural development.

Suggested Reading

1. Sing, R. Y., Geography of Settlements, Rawat Publications, New Delhi, 1994.
2. Mandal, R. B., System of Rural Settlement in Developing countries, Concept Publication, New Delhi.
3. Panda, P. C., Geomorphology and Rural Settlement in India, Chugha Publication, 1990.
4. Desai, Anjana, Spatial Aspect of Settlement Pattern: A Study of the Narmada Comond anre of Maheshana district – Gujrat, Concept Publication, New Delhi, 1984.
5. Chisholm, M., Rural Settlement and Land use, Hutchism Press, London, 1968
6. Tiwari, R. C., Settlement System in Rural India, Prasad Mudranalaya, Allahabad, 1984.
7. तिवारी रामचंद्र: अधिवास भूगोल
8. सिंग आर: अधिवास भूगोल
9. फुले सुरेश: वस्ति भुगोल

Semester III
Paper III (3.T-3)

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

4 Credits

Time: 3 hours

NATURAL DISASTER MANAGEMENT (Core)

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 disaster- Earthquake, 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 II:

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 III:

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 IV:

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, Prayag Pustak Bhawan.
3. Kates,B.I & White,1978, G.F The Environment as Hazards, oxford, New York.
4. R.B. Singh (Ed), 2000,Disaster Management, Rawat Publication, New Delhi.
5. H.K. Gupta (Ed), (2003),Disaster Management, Universiters Press, India.
6. R.B. Singh,(1994),Space Technology for Disaster Mitigation in India (INCED), University of Tokyo.
7. Dr. Satender, (2003), Disaster Management t in Hills, Concept Publishing Co., New Delhi.
8. A.S. Arya Action Plan For Earthquake, Disaster, Mitigation in V.K. Sharma (Ed) (1994),Disaster Management IIPA Publication New Delhi.
9. R.K. Bhandani An overview on Natural & Man made Disaster & their Reduction ,CSIR, New Delhi
10. M.C. Gupta, (2001),Manuals on Natural Disaster management in India, National Centre for Disaster Management,IIPA, New Delhi.

Semester III
Paper IV (3.T-4)

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

4 Credits

Time: 3 hours

URBAN GEOGRAPHY (Elective)

Unit I

Nature Scope and Development of urban geography, different approaches and recent trends in urban geography, Origin and growth of urban settlements: bases and process of urbanization from the ancient, medieval and modern period, and development, Classification of urban settlements on the basis of size and function: urban system.

Unit II

Location, size and spacing of urban settlements, Factors in the location of cities: urban hierarchy and central place theory of Christaller and Losch, rank size rule – urban function and Functional classification of towns.

Unit III

Urban Morphology – economic based and the functional organization of the city. Models of the city structure. basic and non basic functions. central area/CBD – its characteristics and delimitation. residential and industrial and other types of land use within the cities. Contemporary urban issues, urban poverty, urban sprawl, transportation, housing – Slums, environmental pollution: Air, Water, Noise, Solid Based, Urban Crime, issues of Environmental health.

Unit IV

Areal Expansion of cities suburbs. conurbation and mega polis development. Rural – urban fringe. centrifugal and centripetal force. the regional relation of the city. concept of city region, – growth and morphological study of the following Indian cities – New Delhi, Chandigarh, Mumbai, Hyderabad, Secunderabad, Jaipur, and Nagpur.

Suggested reading

1. Bose, A. Urbanization in India
2. Bourne and Symmons, Systems of Cities
3. Carter, Urban Geography
4. Chapin F. S., Urban Land use Planning
5. Dentler, R. A., Urban Problems
6. Deshpande C. T., Cities
7. Johnson, J., Urban Geography.
8. Jones, E. Town and Cities
9. Mayer and Kohn, Reading in Urban Geography.
10. Northom, R. M., Urban Geography.
11. Prakashrao, B. L. S., Urbanization in India A Spatial Approach.
12. Rao. M. S. A., Urban Sociology in India, Orient Longman.
13. सीह आर.एन., मौर्य: नगरीय भूगोल
14. बंसल एस.सी.: नगरीय भूगोल
15. सिन्हा मुरली मनोहर: नगरीय भूगोल
16. मंडल राम बहादुर: नगरीय भूगोल की रूपरेखा

Semester III
Paper IV (3.T-4)

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

4 Credits

Time: 3 hours

AGRICULTURAL GEOGRAPHY(Elective)

Unit I

Nature, Scope, significance and development of agricultural geography. Approaches to the study of agricultural geography: commodity, systematic and regional. Origin and dispersal of agriculture.

Unit II

Determinants of agricultural land use: physical, economic, social and technological. Land use policy and planning. Selected agricultural concepts and their measurements: cropping pattern, crop concentration, intensity of cropping, degree of commercialization, diversification and specialization, efficiency and productivity, crop combination regions and agricultural development.

Unit III

Theories of agricultural location based on several multidimensional factors; Von Thunen's theory of agricultural location and its recent modifications. Whittlesey's classification of agricultural regions. Land use and land capability, green revolution, white revolution.

Unit IV

Contemporary issues of agricultural in India – Food deficit and food surplus region, food aid programmes, nutritional index. Specific problems in Indian agriculture and their management and planning. Agricultural policy in India, Environmental degradation, role of irrigation, fertilizers, insecticides, technological Know How.

Suggested Reading

1. Gregor, H. P., Geography of Agriculture, Prentice Hall, New York, 1970.
2. Grigg, D. B., The Agriculture system of the world, CUP, New York, 1974.
3. Hartshone, T. N. and Alexander, J. W., Economic Geography, Prentice Hall, New York.
4. Morgan W. B. and Norton, R. J., Agricultural Geography, Mathuen, London.
5. Singh, J. R., Agricultural Geography, Tata McGraw Hill Publication, New Delhi.
6. कमलेश एस. आर., कृषी भूगोल, वसुधंरा प्रकाशन, गोरखपूर, 1996.
7. फुले सुरेश, कृषी भूगोल, विद्याभारती प्रकाशन, लातूर, 2000.
8. प्रमिला कुमार: कृषी भूगोल

Semester-III
PAPER-VI (3.P-1)

Semester Practical Examination Marks: 80

Time- 4 hours

Internal Assessment Marks: 20

PRACTICAL-V

1. Economic Maps and Diagrams

(10 Marks- 2 Periods)

1. Lorenz Curve
2. Ergo Graph
3. Triangular graph
4. Isochors and Isochrones
5. Simple and semi-log graphs

2. Population maps and Diagrams

(10 Marks- 2 Periods)

1. Dependency ratio map
2. Isopleths of population potential
3. Demographic transition model
4. Superimposed pyramid
5. Natural replacement graph of population.

3. Settlement maps and Diagrams

(10 Marks- 2 Periods)

1. Spatial mean center- standard distance map
2. Distance decay graph
3. Dispersion of settlement
4. Concentration of settlement
5. Reilly's law of retail gravitation

4. Cartographic methods

(25 Marks- 4 Periods)

(i) Agricultural geography and regional development and planning

- A) Index of concentration
- B) Index of diversification
- C) Index of crop combination
- D) Agricultural efficiency

OR

(ii) Urban Geography

- A. Index of centrality
- B. Near- neighbor analysis
- C. Shop- rent Index
- D. K3, K4 and K7 Value Computation
- E. Rank Size Rule

5. Viva-Voce

(15 Marks)

6. Practical Record

(10 Marks)

Internal Assessment Marks:

Test Examination

(20 Marks)

Note- The batch of Practical Class should not be exceeding 10 (Ten) Students.

**Semester-III
PAPER-VII (3.P-2)**

Semester Practical Examination Marks: 80

Time- 4 hours

Internal Assessment Marks: 20

PRACTICAL-VI

Statistical Techniques

Study of Practical problems on the following particular emphasis on the optional subject offered by the students. (Data and problems attempted should be from the the respective optional subject offered by the students)

Collection and organization of statistical data. Majors of central tendencies and dispersion.

1. The normal frequency distribution curve and its use. Probabilities. (10 marks)
2. Methods of sampling – A numerical B. Aerial distribution (5 marks)
3. Statistical significance tests: A) Students T Test B) Chi-square test
C) F-test (10Marks)
4. Correlation- A. Pearson's Product moment correlation (10 Marks)
B. Spearman's rank correlation
5. Correlation significance test (10marks)
6. Regression Line (10 marks)
7. Confidence limits (10 marks)
8. Viva voce (10 marks)
9. Practical Record (5 marks)

Internal Assessment Marks:

Test Examination (20 Marks)

Note- The batch of Practical Class should not be exceeding 10 (Ten) Students.

**Semester IV
Paper I (4.T-1)**

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

4 Credits

Time: 3 hours

POPULATION GEOGRAPHY (Core)

Unit-I

Population geography : Scope and objectives, development of Population Geography as a field of specialization-population geography and Demography-Sources of population data, their level of reliability and problems of mapping of population data.

Unit-II

Population distribution : density and growth-Theoretical issues, Classical and modern theories in population distribution and growth, World patterns and their determinants, India-: Population distribution, density and growth profile, Concepts of under population and over population.

Unit-III

Population composition age and sex, Literacy and education, Rural and urban, Urbanization, occupational structure, Population composition of India. Population dynamics; Measurement of fertility and mortality. Migration : National and international patterns, India's population dynamics.

Unit-IV

Population and development : population-resource regions and levels of population and socio-economic development, population policies in developed and less development countries, Human development index and its components, India's population policies, population and environment, implication for the future.

Suggested reading:

- 1) Bogue, D.J. (1969): Principles in Demography, John Wiley New York
- 2) Bose, Ashish et al (1974): Population in India;s Development (1947-2000) Vikas Publishing House New Delhi.
- 3) Census of India. India : A State Profile, 1991
- 4) Chandna R. C. (2000): Geography of population, Concept Determinants and Patterns, Kalyani Publishers, New Delhi.
- 5) Clark John (1973): Population Geography, Pergamum Press New York
- 6) Crook, Nigel (1977): Principles of population and development Pergamum Press New York
- 7) Mamoria C. B. (1981): India's Population Problems Kitab Mahal Delhi
- 8) Premi M. K. (1991): India population Heading towards a Billion Publishing Corporation
- 9) Shrinivasan K. (1998) Basin Demographic Techniques and application Sage Publication New Delhi.
- 10) पंडा बी.पी.: जनसंख्या भूगोल
- 11) हिरालाल.: जनसंख्या भूगोल
- 12) तिवारी विजय कुमार: जनसंख्या भूगोल
- 13) ओझा विजय कुमार: जनसंख्या भूगोल

**Semester IV
Paper II (4.T-2)**

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

4 Credits

Time: 3 hours

GEOGRAPHY OF TOURISM(Core)

Unit I

Basics of Tourism: Definition of Tourism, Factors influencing tourism: Historical, Natural, Socio-Cultural and Economic. Motivating factors for pilgrimages: leisure, recreation, elements of tourism, tourism as an industry

Unit II

Geography of Tourism – its spatial affinity, areal land locational dimensions comprising physical, cultural, historical and economic; Tourism Types: Cultural, eco- ethno- coastal and adventure tourism, national and international tourism, globalization and tourism.

Unit III

Indian Tourism: regional dimensions of tourist attraction; evolution of tourism, promotion of tourism. Infrastructure and support system—accommodation and supplementary accommodation; other facilities and amenities, tourism circuits – short and longer detraction – agencies and intermediacies – Indian hotel industry.

Unit IV

Impacts of Tourism: Physical, economic and Social and perceptual positive and negative impacts; environmental laws and tourism – current trends, spatial patterns and recent changes, role of foreign capital and impact of globalization on tourism.

Suggested reading

1. Bhatia A. K., Tourism Development: Principles and Practices, Sterling Publishers, New Delhi, 1996.
2. C. Michell Hall, Tourism Planning, Policies and Relationship.
3. Milton, D., Geography of World Tourism, Prentice Hall New York, 1993.
4. Robinson, H. A., Geography of Tourism, Macdonald and Evans, London, 1996.
5. Shaw, G. and Williams, A. M. Critical Issues in Tourism – A Geographical Perspective, Oxford Blackwell, 1994.
6. Theobald, W. (Ed.), Global Tourism: The Next Decade, Oxford, 1994.
7. Williams Stephen, Tourism Geography, Routledge, Contemporary Human Geography, London, 1998
8. शुक्ला राजेश, शुक्ला रश्मी: पर्यटन भूगोल
9. शर्मा अतुल: पर्यटन भूगोल
10. बंसल एस.सी.: पर्यटन भूगोल एवं यात्रा प्रबंधन
11. शर्मा संजय कुमार: पर्यटन में भूगोल

**Semester IV
Paper III (4.T-3)**

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

4 Credits

Time: 3 hours

REGIONAL PLANNING & DEVELOPMENT (Core)

Unit-I

Regional concepts in geography, conceptual and theoretical framework, merits and limitations for application to regional planning and development, changing concept of the region from an inter-disciplinary view-point, concepts of space, area and locational attributes.

Types of regions : Formal and functional, uniform and nodal, single purpose and composite region, in the context of planning, regional hierarchy, special purpose regions.

Unit-II

Physical regions, resources regions, regional divisions according to variation in levels of socio-economic development, Special purpose regions-river valley regions, metropolitan region, problem region-Hilly region, tribal region, regions of drought and floods.

Unit-III

Approaching to delineation of different types of regions and their utility in planning. Planning Process-sectoral, temporal and spatial dimensions, short-term and long perspective of planning, Planning for the region's development and multi regional planning in a national context. Indicators of development and their data sources, Measuring levels of regional development and disparities.

Unit-IV

Concept of multi-level planning: decentralized planning : People participation in the planning process, Panchayat Raj system, role and relationship Panchayat raj, Institutions (Village Panchayat, Panchayat Samitee and Zilla Parishad) and administrative Structure (Village, Block, District) regional development in India-Problems and prospect.

Suggested Reading:

- 1) Bhat L.S. (1973): Regional Planning in India, Statistical Publishing society Calcutta
- 2) Bhat L.S. et.al. (1976): Micro level Planning A case study of Karnal Areas, Hariyana K.B. Publications New Delhi.
- 3) Friedman J and Alonso W (1967): Regional Development and Planning A Case study of Venezuela MIT Press Cambridge Mass.
- 4) Glikson Arthur (1955) Regional Planning and Development, Netherlands Universities foundation for International operation London.
- 5) Government of India Planning Commission (1961): Third Five year Plan Chapter on Regional Imbalances in Development New Delhi.

Semester IV

Paper IV (4.T-4)

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

4 Credits

Time: 3 hours

SOCIAL GEOGRAPHY (Elective)

Unit-I

Nature and development of social geography, Philosophical bases of social geography-Positivist, Structuralist, radical, Humanist, Post-modern and post structuralist; social geography in the realms of social sciences.

Unit-II

Space and Society, Understanding a society and its structure and process. Geographical bases of social formations, contribution of social theory, power relation and space.

Unit-III

Towards social geography of India, Social differentiation and region formation, evolution of socio-cultural regions of India. Bases of social regions formation, role of race, caste, ethnicity, religion and language, India unity and diversity, Social transformation and change in India.

Unit-IV

Social well-being : Concepts of social well-being. Physical quality of life, Human Development : Measurement of Human development with social, economic and environmental indicators, Rural urban deprivation in India with respect to health care : education and shelter; deprivation and discrimination issues relating to women and under privileged groups : patterns and bases of rural and urban society.

Suggested Reading:

- 1) Azzaudin Ahmad: Social Geography
 - 2) Smith David: Social geography: A welfare Approach, Edward Arnold, 1977
 - 3) Sopher, David: An exploration of India, Cornell University, 1980
 - 4) Wankhede Deepak M. (2008): Socio-Economic Development of Schedule Castes, Gautam Book Center Publications
- 5द्ध मौर्य एस.डी.: सामाजिक भूगोल
- 6द्ध सिंह जगतपाल: सामाजिक एवं सांस्कृतिक भूगोल

Semester IV

Paper IV (4.T-4)

Marks 100

Semester Examination =80 Marks

Internal Assessment =20Marks

4 Credits

Time: 3 hours

GEOGRAPHY OF WATER RESOURCES (Elective)

Unit-I

Water as a focus of geographical interest, inventory and distribution of world's water resources (surface and subsurface); Basic hydrological cycle and its components- precipitation, potential evapotranspiration, interception losses; runoff; Factors affecting water resources development – climatic factors, physiographic factors, geological factors.

Unit-II

Water demand and use: methods of estimation — agricultural, industrial and municipal uses of water. Agricultural use of water: estimation of crop —water requirement; soil-water- crop relationships; water balance and drought; major and minor irrigation: methods of distribution of water to farms; water harvesting techniques, soil water conservation.

Irrigation - water logging; salinity and alkalinity of soil - over exploitation of groundwater; land subsidence; saline water intrusion into the coastal aquifers; Water quality parameters; water pollution-river and ground water-fluoride and arsenic.

Unit-III

Industrial use of water: methods of estimation; demand for water in the industrial sector of India. Municipal use of water: general trends in water supply to the urban and rural communities in India, Internal navigation, hydel power and recreation.

Unit-IV

Problems of water resource management; Floods - magnitude/frequency, structural and nonstructural adjustment of flood hazards; embankments, reservoirs, channel improvement, soil conservation, afforestation, flood forecasting, evacuation, floodplains; land use regulation and insurance. Case studies of major floods. Droughts - occurrence, major drought management. Conservation and planning for the development of water resources-social and institutional considerations; integrated basin planning; conjunctive use of surface and groundwater resources; watershed management; international and inter-state river water disputes and treaties; some case studies.

Recommended Readings:

1. Agarwal, Anil and Narain, Sunita (1997), *Dying Wisdom: Rise, Fall and Potential of India's Traditional Water Harvesting System*. Centre for Science and Environment, New Delhi.
2. Andrew A. Dzurik, (2002), *Water Resources Planning*, Rowman & Littlefield Publishers, Inc., Savage, Maryland.
3. Cech, T.V. (2005), *Principles of Water Resources : History, Development, Management and Policy*, John Wiley & Sons, Hoboken.
4. Chorley, R.J. (1979), *Water, Earth and Man*, Methuen, London.
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**Semester-IV
PAPER-VI (4.P-1)**

Semester Practical Examination Marks: 80

Time- 4 hours

Internal Assessment Marks: 20

PRACTICAL-VII

1. Visit to a field on some aspects of M.A. Part-II theory paper and writing of a field work report

(A) Collection of data & data Processing and Tabulation (25 Marks)

(B) Writing of Project Report (40 Marks)

2. **Viva Voce** (15 Marks)

Internal Assessment Marks:

Pre Viva Seminar Presentation (20 Marks)

Note- The batch of Practical Class should not be exceeding 10 (Ten) Students.

**Semester-IV
PAPER-VII (4.P-2)**

Practical Marks: 80

Time- 4 hours

Internal Assessment Marks: 20

PRACTICAL-VIII

1. **Writing of at least one short research paper based on theory of the syllabus.**

(A) Collection of data (10 marks)

(B) Data Processing and Tabulation (15 Marks)

(B) Writing on Short Research Paper (40 Marks)

- (D) **Viva Voce** (15 Marks)

Internal Assessment Marks:

Pre Viva Seminar Presentation (20 Marks)

Note- The batch of Practical Class should not be exceeding 10 (Ten) Students.