UNIVERSITY OF JAMMU
DEPARTMENT OF GEOGRAPHY
SYLLABUS FOR POSTGRADUATE PROGRAMME IN GEOGRAPHY
(2-YEAR M.A./M.SC. COURSE) AS PER NATIONAL EDUCATION POLICY (NEP)-2020
M.A./M.SC. GEOGRAPHY, 2nd SEMESTER
(Detailed syllabus for examination to be held in May 2026, 2027 2028)

Course Code: P2GETC201 **Title: Climatology**
Credit: 4 **Max. Marks: 100**

Objective:
The objective of this course is to study the unique characteristics of atmospheric conditions in controlling climate, origin, types, causes and processes influencing the climatic variation and their impact on humans' vice-versa.

Unit-I		**Contract Hours**
1.1	Nature and Scope of Climatology and its relationship with Meteorology	(3)
1.2	Composition, mass and the structure of atmosphere	(3)
1.3	Insolation, Heat balance of the earth and distribution of temperature (Temporal, Vertical and Horizontal)	(3)
1.4	Atmosphere moisture and precipitation	(3)
Unit-II		
2.1	Tropical, temperate and high latitude weather systems	(3)
2.2	Concept of air masses and atmospheric disturbances	(3)
2.3	Ocean interaction – EI Nino-Southern Oscillation (ENSO) and La Nina Monsoon winds, Norwesters and cyclones	(3)
2.4	Climate of India and its controls: Western disturbances	(3)
Unit-III		
3.1	Climatic classification of Koppen's	(3)
3.2	Climatic classification of Thornwaite	(3)
3.3	Atmospheric pollution and global warming	(3)
3.4	Major climates of the World-tropical, temperate, desert and mountain climate	(3)
Unit-IV		
4.1	Climate and vegetation	(3)
4.2	Climate and Soil	(3)
4.3	Climate and agriculture	(3)
4.4	Climate and food security	(3)

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(Detailed syllabus for examination to be held in May 2026, 2027 2028)

Course Code: P2GETC201 **Title: Climatology**
Credit: 4 **Max. Marks: 100**
Duration of Examination: 3 hrs. **(a) Minor Test-I: 20**
(b) Minor Test-II:20
(c) Major Test: 60

Scheme of Examination:

MCQ on LMS + Subjective Test	Syllabus to be covered in the examination	Time allotted for the examination	%Weightage (Marks)
TEST I (after 30 days)	25%	1 hour	10 + 10
TEST II (after 60days)	26 to 50%	1 hour	10 + 10
Theory	**Syllabus to be covered in the examination**	**Time allotted for the examination**	**%Weightage (Marks)**
Major test (after 90 days)	100%	3 hours	60
Total			100

The student shall be continuously evaluated during the conduct of each course on the basis of his/her performance as follows:

Test I and Test II

The Subjective Test of Test I and Test II would consist of three short answer type questions (05 marks each). Students are required to answer two questions. **No preparatory holidays shall be provided for the Test I and Test II**. Those candidates who have appeared in Test I and Test II and failed to get the minimum required marks i.e. 14 out of 40 will be eligible to re-appear in the Test I and Test II only once.

Major Test

The Major test will comprise of two sections, Section-A and Section-B. Section-A will have one compulsory question comprising of 10 parts (minimum 02 from each unit) of 03 marks each. Section B will have 04 questions of 15 marks each to be set from the last two units (02 from each unit). In Section B students are required to attempt 01 question from each unit. **In major test there should not be a gap of more than two days in between two tests.**

Suggested Readings:

1. Barry, R.G. and Chorley P.J.: Atmosphere, Weather and Climate, Routledge, London and New York, 1998.
2. Critchfield, J.H.: General Climatology, Prentice Hall, India, New Delhi, 1993.
3. Das, P.K., Monsoons, National Book Trust, New Delhi, 1987.
4. Fein, J.S. and Stephens, P.N., Monsoons, Wiley Inter Science, 1987.
5. India met. Deptt. : Climatological Tables of Observatories in India, Govt. of India, 1968.
6. Lal, D.S.: Climatology, Chitanya Publications, Allahabad, 1986.
7. Lydolph, P.E.: The Climate of the Earth, Rowman, 1985.
8. Menon, P.A.: Our Weather, N.B.T., New Delhi, 1989.
9. Peterson, S.: Introduction to Meteorology, Mc Graw Hill Book, London, 1969.
10. Robinson, R.D. and Perry, A (ed): Applied Climatology, Principles and Practice, Routledge, London.

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Course Code: P2GETC202 **Title: History of Geographical Thought**
Credit: 4 **Max. Marks: 100**

Objective:
The objective of this course is to understand the history and philosophy of geography, their general characteristics during ancient, medieval and modern periods, their origin, development and reconciling different vision of realities pertaining to areal differentiation, spatial organizations and different dichotomies.

Unit-I	**Contract Hours**
1.1 General Character of Geography in the Ancient Period-Contribution of Herodotus, Eratosthenes, Strabo and Ptolemy.	(3)
1.2 Contribution of Indian Scholars.	(3)
1.3 Concept of Geography in the Medieval Period-Dark Age for Science.	(3)
1.4 Arab Geographers.	(3)
Unit-II	
2.1 Beginning of Modern Geography – Verenius, Cluverius and Kant	(3)
2.2 Contributions of Humboldt and Ritter	(3)
2.3 Darwin's impact on Geography	(3)
2.4 Place, Space and Locality: The current Focus in Human Geography	(3)
Unit-III	
3.1 Shifting viewpoints in Geography during the second half of the 19 th Century.	(3)
3.2 Growth and Development of Dualism between Physical and Human Geography, Systematic and Regional Geography.	(3)
3.3 Determinism and Posssibilism.	(3)
3.4 Different Concepts of Geography: (a) Neo-Determinism and Probabilism (b) Time Geography (c) Human Ecology	(3)
Unit-IV	
4.1 Geography as a Science of Distributions and as a science of areal differentiation.	(3)
4.2 Quantitative Revolution in Geography – Contemporary Relevance	(3)
4.3 Models in Geography (Significance and Types)	(3)
4.4 Modern Themes in Geographical Thought. (Radicalism, Postmodernism and Feminism)	(3)

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Course Code: P2GETC202 **Title: History of Geographical Thought**
Credit: 4 **Max. Marks: 100**
Duration of Examination: 3 hrs. **(a) Minor Test-I: 20**
(b) Minor Test-II: 20
(c) Major Test: 60

Scheme of Examination:

MCQ on LMS + Subjective Test	**Syllabus to be covered in the examination**	**Time allotted for the examination**	**%Weightage (Marks)**
TEST I (after 30 days)	25%	1 hour	10 + 10
TEST II (after 60days)	26 to 50%	1 hour	10 + 10
Theory	**Syllabus to be covered in the examination**	**Time allotted for the examination**	**%Weightage (Marks)**
Major test (after 90 days)	100%	3 hours	60
Total			100

The student shall be continuously evaluated during the conduct of each course on the basis of his/her performance as follows:

Test I and Test II

The Subjective Test of Test I and Test II would consist of three short answer type questions (05 marks each). Students are required to answer two questions. **No preparatory holidays shall be provided for the Test I and Test II**. Those candidates who have appeared in Test I and Test II and failed to get the minimum required marks i.e. 14 out of 40 will be eligible to re-appear in the Test I and Test II only once.

Major Test

The Major test will comprise of two sections, Section-A and Section-B. Section-A will have one compulsory question comprising of 10 parts (minimum 02 from each unit) of 03 marks each. Section B will have 04 questions of 15 marks each to be set from the last two units (02 from each unit). In Section B students are required to attempt 01 question from each unit. **In major test there should not be a gap of more than two days in between two tests.**

Suggested Readings:

1. Alber, Ronald: Adams, John S. Gould, Peter: Spatial Organization: The Geographer's View of the World, Prentice Hall, N.J., 1971.
2. Ali, S.M.: The Geography of Puranas, Peoples Publishing House, Delhi, 1966.
3. Amedeo, Douglas: An Introduction to Scientific Reasoning inGeography, John Wiley, U.S.A., 1971.
4. Dikshit, R.D.(ed): the Art & Science of Geography Integrated Readings, Prentice Hall of India, New Delhi, 1994.
5. Hartshorne, R.Perspectives on Nature of Geography, Rand McNally and Co., 1959.
6. Hussain, M.Evolution of Geographic Thought, Rawat Pub., Jaipur, 1984.
7. Johnston, R.J. Philosophy and Human Geography. Edward Arnold, London, 1983.
8. Johnston, R.J. the Future of Geography, Metheun, London, 1988.
9. Minshull, R.: The Changing Nature of Geography. Hutchinson Univesity Library, London, 1970.

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Course Code: P2GETC203 **Title: Regional Development & Planning**
Credit: 4 **Max. Marks: 100**

Objectives: Regional Planning is multidisciplinary approach aims at holistic development of a region. The objective of the Regional Planning &Development Program is to stimulate a systematic approaches for addressing and resolving the physical, economic, and social problems of a regions. The design of the course focus on the exploration and resolution of planning issues from the point of view of community interests, emphasizing the promotion of equitable and economical use of natural and human resources to improve the quality of life .

Unit-I	**Contract Hours**
1.1 Concept and Definition of region and Regional Planning.	(3)
1.2 Evolution and types of Regional Planning	(3)
1.3 Merits and limitations for application to regional planning.	(3)
1.4 Types of Regions	(3)
Unit-II	
2.1 Theories and models of Regional development	(3)
2.2 Growth Pole model	(3)
2.3 Rostow ‘s model	(3)
2.4 Cumulative Causation model	(3)
Unit-III	
3.1 Tribal Area development plan	(3)
3.2 Hilly Area development plan	(3)
3.3 Desert,Drought proneand Backward area development plan	(3)
3.4 Niti Ayog: Aims and Objectives	(3)
Unit-IV	
4.1 Concept of Growth and Development	(3)
4.2 Indicators of Development (social, economic and happiness index)	(3)
4.3 Measurement of Regional Development	(3)
4.4 Regional Imbalances in India – Agricultural, Industrial and Rural- Urban	(3)

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Course Code: P2GETC203 **Title: Regional Development & Planning**
Credit: 4 **Max. Marks: 100**
Duration of Examination: 3 hrs. **(a) Minor Test-I: 20**
(b) Minor Test-II: 20
(c) Major Test: 60

Scheme of Examination:

MCQ on LMS + Subjective Test	Syllabus to be covered in the examination	Time allotted for the examination	%Weightage (Marks)
TEST I (after 30 days)	25%	1 hour	10 + 10
TEST II (after 60days)	26 to 50%	1 hour	10 + 10
Theory	**Syllabus to be covered in the examination**	**Time allotted for the examination**	**%Weightage (Marks)**
Major test (after 90 days)	100%	3 hours	60
Total			100

The student shall be continuously evaluated during the conduct of each course on the basis of his/her performance as follows:

Test I and Test II

The Subjective Test of Test I and Test II would consist of three short answer type questions (05 marks each). Students are required to answer two questions. **No preparatory holidays shall be provided for the Test I and Test II**. Those candidates who have appeared in Test I and Test II and failed to get the minimum required marks i.e. 14 out of 40 will be eligible to re-appear in the Test I and Test II only once.

Major Test

The Major test will comprise of two sections, Section-A and Section-B. Section-A will have one compulsory question comprising of 10 parts (minimum 02 from each unit) of 03 marks each. Section B will have 04 questions of 15 marks each to be set from the last two units (02 from each unit). In Section B students are required to attempt 01 question from each unit. **In major test there should not be a gap of more than two days in between two tests.**

Suggested Readings:

1. Abler, R.et. al., Spatial Organization: The Geographer's View of the World, Prentice Hall, Englewood Cliffs, N.J., 1971.
2. Bhat, L.S. Regional Planning in India, Statistical Publishing society, Calcutta, 1973.
3. Bhat, L.S. et. Al. : Micro-Level Planning: A Case study of Karnal Area, Haryana, K.B., Publications, New Delhi, 1976.
4. Chorley, R.J. and Hagget, : Models in Geography, Methuen, London, 1967.
5. Christaller, W.: Central Places in Southern Germany, Translated by C.W. Baskin, Prentice Hall, Englewood Cliffs, New Jersey, 1966.
6. Friedmann, J. and Alonso, W.: Regional Development Policy-A Case Study of Venezuela, M.I.T. Press Cambridge, Mass, 1966.
7. Friedmann, J. and Alonso, W.: Regional Development and Planning A. Reader, M.I.T. Press, Cambridge, Mass 1967.
8. Glikson, Arthur: Regional Planning and Development, Netherlands Universities foundation for International Co-operation, London, 1955.
9. Gosal, G.S. and Krishan, G: Regional Disparities in Levels of Socio-Economic Development in Punjab, Vishal Publications, Kurukshetra, 1984.
10. Government of India, Planning Commission: Third Five Year Plan, Chapter on Regional Imbalances in Development, New Delhi, 1961.

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Course Code: P2GETE204 **Title: Population Geography**
Credit: 4 **Max. Marks: 100**

Objectives: The objective of this course is to understand the facts related to spatial variation in the distribution of human population and to analyse the demographic components of change like, migration, urbanization, human resources etc. for achieving sustainable-economic growth and environmental protection.

Unit-I	**Contract Hour**
1.1 Understanding Population Geography: Nature, Scope and Relevance	(3)
1.2 Demographic Data Sources	(3)
1.3 Factors affecting Population distribution, Density and Growth.	(3)
1.4 Components of Population change – Mortality and fertility.	(3)
Unit-II	
2.1 Concepts of overpopulation, under population and optimum population.	(3)
2.2 India and World: Urbanization literacy patterns.	(3)
2.3 India and World: Age and Sex composition of population.	(3)
2.4 India and World: Occupational Structure.	(3)
Unit-III	
3.1 The Demographic Transition: Theory and Applications	(3)
3.2 Migrations: Types, Causes and Consequences.	(3)
3.3 Population Problems of under Developed and Advanced Countries.	(3)
3.4 Population Resource Regions of the World.	(3)
Unit-IV	
4.1 Classical Theories of Population – Malthus, Marx.	(3)
4.2 Definition, Types and Objectives of the Population Policies.	(3)
4.3 Population Policy of India.	(3)
4.4 Concept of Social Well-Being and Quality of Life	(3)

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(Detailed syllabus for examination to be held in May 2026, 2027 2028)

Course Code: P2GETE204 | **Title: Population Geography**
Credit: 4 | **Max. Marks: 100**
Duration of Examination: 3 hrs. | **(a) Minor Test-I: 20**
(b) Minor Test-II: 20
(c) Major Test: 60

Scheme of Examination:

MCQ on LMS + Subjective Test	**Syllabus to be covered in the examination**	**Time allotted for the examination**	**%Weightage (Marks)**
TEST I (after 30 days)	25%	1 hour	10 + 10
TEST II (after 60days)	26 to 50%	1 hour	10 + 10
Theory	**Syllabus to be covered in the examination**	**Time allotted for the examination**	**%Weightage (Marks)**
Major test (after 90 days)	100%	3 hours	60
Total			100

The student shall be continuously evaluated during the conduct of each course on the basis of his/her performance as follows:

Test I and Test II

The Subjective Test of Test I and Test II would consist of three short answer type questions (05 marks each). Students are required to answer two questions. **No preparatory holidays shall be provided for the Test I and Test II**. Those candidates who have appeared in Test I and Test II and failed to get the minimum required marks i.e. 14 out of 40 will be eligible to re-appear in the Test I and Test II only once.

Major Test

The Major test will comprise of two sections, Section-A and Section-B. Section-A will have one compulsory question comprising of 10 parts (minimum 02 from each unit) of 03 marks each. Section B will have 04 questions of 15 marks each to be set from the last two units (02 from each unit). In Section B students are required to attempt 01 question from each unit. **In major test there should not be a gap of more than two days in between two tests.**

Suggested Readings:

1. Barrett, Hazel R., Population Geography: Conceptual Frameworks in Geography, Oliver and Boyd, London, 1994.
2. Bogue, D.J., Principles in Demography, John Wiley, New York, 1969.
3. Bose, Ashish et al., Population in India's Development (1947-2000), Vishal Publishing House, New Delhi, 1974.
4. Census of India, India: A State Profile, 1991.
5. Chandna, R.C., Geography of Population: Concepts, Determinants and Patterns, Kalyani Publishers, New Delhi, 2000.
6. Clarke, John 1, Population Geography, Pergamon Press, Oxford, 1973.
7. Crook, Nigel, Principles of Population and Development, Pergamon Press, New York, 1997.
8. Garnier, B.J. Geography of Population, Longman, London, 1970.
9. Mitra, Asok, India's Population: Aspects of Quality and Control. Vol. I and II, Abhinar Publications, New Delhi, 1978.
10. UNdp: Human Development Report, Oxford University Press, Oxford 2000.
11. Woods, R., Population Analysis in Geography, Longman, London, 1979.
12. Zelinsky Wilbur, A Prologue to Population Geography, Prentice Hall, 1966.
13. Izhar Hassan, Mohammad, "Population Geography" Rawat Publications, New Delhi, 2009.

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Course Code: P2GETE205 **Title: Rural Geography**
Credit: 4 **Max. Marks: 100**

- To understand Rural Space and Settlement.
- To analyze the spatial, social and economic characteristics within rural areas.
- To examine the impact of rural environment on development initiatives.
- Provides insights that can inform policy and decision-making related to rural development.

UNIT-I	**Contract Hour**
1.1. Concept of Rural Geography	(3)
1.2. Scope of Rural Geography	(3)
1.3.Approaches to study Rural Geography	(3)
1.4. Significance of Rural Development	(3)

UNIT-II	
2.1.Pattern and Type of Rural Settlement	(3)
2.2.Morphology of Rural Settlement with Special Reference to Northern India	(3)
2.3. Distribution of Rural Settlement with Special Reference to Size and Spacing	(3)
2.4. Rural Settlements in Jammu & Kashmir	(3)

UNIT-III	
3.1. Rural Urban Migration	(3)
3.2. Rural-Urban Continuum	(3)
3.3. Functional Classification of Rural Settlements	(3)
3.4. Rural Service Centers, Their Nature and Hierarchy (Central Place Theory)	(3)

UNIT-IV	
4.1. Environmental issues of rural Areas	(3)
4.2. Poverty in Rural Areas	(3)
4.3. Rural Planning	(3)
4.4. Rural Geography for sustainable development	(3)

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(Detailed syllabus for examination to be held in May 2026, 2027 2028)

Course Code: P2GETE205 | **Title: Rural Geography**
Credit: 4 | **Max. Marks: 100**
Duration of Examination: 3 hrs. | **(a) Minor Test-I: 20**
(b) Minor Test-II:20
(c) Major Test: 60

Scheme of Examination:

MCQ on LMS + Subjective Test	**Syllabus to be covered in the examination**	**Time allotted for the examination**	**%Weightage (Marks)**
TEST I (after 30 days)	25%	1 hour	10 + 10
TEST II (after 60days)	26 to 50%	1 hour	10 + 10
Theory	**Syllabus to be covered in the examination**	**Time allotted for the examination**	**%Weightage (Marks)**
Major test (after 90 days)	100%	3 hours	60
Total			100

The student shall be continuously evaluated during the conduct of each course on the basis of his/her performance as follows:

Test I and Test II

The Subjective Test of Test I and Test II would consist of three short answer type questions (05 marks each). Students are required to answer two questions. **No preparatory holidays shall be provided for the Test I and Test II**. Those candidates who have appeared in Test I and Test II and failed to get the minimum required marks i.e. 14 out of 40 will be eligible to re-appear in the Test I and Test II only once.

Major Test

The Major test will comprise of two sections, Section-A and Section-B. Section-A will have one compulsory question comprising of 10 parts (minimum 02 from each unit) of 03 marks each. Section B will have 04 questions of 15 marks each to be set from the last two units (02 from each unit). In Section B students are required to attempt 01 question from each unit. **In major test there should not be a gap of more than two days in between two tests.**

Books Recommended:

1. Chisholm, Michael; *Rural Settlements and Land Use*, Hutchinson University Library, London, 1970.
2. Gosh S., *Introduction to Settlement Geography*, Orient Longman, 1998.
3. Hudson, F.S.: *A Geography of Settlements*, Macdonald & Evans, New York, 1976.
4. Mandal, R.B., *Systems of Rural Settlements in Developing Countries*, Concept Publishing Company, 1989.
5. Mandal, R.B., *Introduction to Rural Settlement*, Concept Publishing Company, 1979.
6. Mitra, A., *Report on House Types and Village Settlement Patterns in India*.
7. Singh, R.Y., *Geography of Settlement*, Rawat Publication, New Delhi.
8. Singh, R.L. et al: *Rural Settlements in Monsoon Asia*, NGSI, Varanasi, 1972.
9. Singh, R.L., *Readings in Settlements Geography*, Geographical Society of India, Varanasi, 1975.

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Course Code: P2GETE206 **Title: Urban Geography**
Credit: 4 **Max. Marks: 100**

Objectives: The course provides an overview of the interlink between Geography and urbanization. It aims to shed light on the definition, nature, and scope of urban geography, the process of urbanization and urban systems, capitalism and development through urbanization, urban planning in India, and urban problems in India with special reference to Mumbai.The course shall further convey the process of urbanization from local to global and development through urbanization

Unit-I	**Contract Hours**
1.1 Meaning, Scope and recent trends in Urban Geography.	(3)
1.2 Different Approaches to the Study of Urban Geography.	(3)
1.3 Definition of Urban Places, Origin and Growth of Urban Centres, Basis of Urbanization.	(3)
1.4 Location, Situation and site of Urban Centres.	(3)
Unit-II	
2.1 Size and Spacing of Urban Settlements	(3)
2.2 City Region Relationship: Basis, Nature, Definition and Functional Structure of Umland.	(3)
2.3 Classification of Urban Settlements on the basis of Size and Functions.	(3)
2.4 Economic Base of Cities-Basic and Non-Basic Concepts.	(3)
Unit-III	
3.1 Urban Morphology and Land Use Models of Burgess (Concentric Zone) Harris-Ulman (Multiple Nuclei) and Hoyt's (Sector).	(3)
3.2 Morphology of Indian Cities	(3)
3.3 Urban Sprawl – Concept and Features.	(3)
3.4 Urban Fringe-Attributes and Demarcation.	(3)
Unit-IV	
4.1 Smart cities and Town Planning.	(3)
4.2 The Central Business District – Concept and Characteristics.	(3)
4.3 Problems of urbanization	(3)
4.4 National Urban Policy and Urban land use planning	(3)

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M.A./M.SC. GEOGRAPHY, 2nd SEMESTER
(Detailed syllabus for examination to be held in May 2026, 2027 2028)

Course Code: P2GETE206 **Title: Urban Geography**
Credit: 4 **Max. Marks: 100**
Duration of Examination: 3 hrs. **(a) Test-I: 20**
(b) Test-II:20
(c) Major Test: 60

Scheme of Examination:

MCQ on LMS + Subjective Test	Syllabus to be covered in the examination	Time allotted for the examination	%Weightage (Marks)
TEST I (after 30 days)	25%	1 hour	10 + 10
TEST II (after 60days)	26 to 50%	1 hour	10 + 10
Theory	**Syllabus to be covered in the examination**	**Time allotted for the examination**	**%Weightage (Marks)**
Major test (after 90 days)	100%	3 hours	60
Total			100

The student shall be continuously evaluated during the conduct of each course on the basis of his/her performance as follows:

Test I and Test II

The Subjective Test of Test I and Test II would consist of three short answer type questions (05 marks each). Students are required to answer two questions. **No preparatory holidays shall be provided for the Test I and Test II**. Those candidates who have appeared in Test I and Test II and failed to get the minimum required marks i.e. 14 out of 40 will be eligible to re-appear in the Test I and Test II only once.

Major Test

The Major test will comprise of two sections, Section-A and Section-B. Section-A will have one compulsory question comprising of 10 parts (minimum 02 from each unit) of 03 marks each. Section B will have 04 questions of 15 marks each to be set from the last two units (02 from each unit). In Section B students are required to attempt 01 question from each unit. **In major test there should not be a gap of more than two days in between two tests.**

Books Recommended:

1. Carter, H (1972): The Study of Urban Geography, Edward Arnold.
2. Latham, D. McCormack, K. McNamara, D. McNeill (2009): Key Concepts in Geography, Sage.
3. Knox, P.L., and Taylor. P.J.(1995): World Cities in a World System, Cambridge University Press, U.K.
4. Harvey, D.(1973): Social Justice and the City, Arnold
5. Abu-Lughod, J. and Hay, R. Jr. (1977): Third World Urbanisation, Maarouta Press.
6. Gugler. J. (ed.)(1988): The Urbanisation of the Third World, O.U.P 7. Sassen, S. (1991): The Global City, Princeton University Press.
8. Clarke, D. (1982): Urban Geography: An Introductory Guide, Groom Helm.
9. Marcuse, P. and Kempen, R.V. (eds.),(2000): Globalizing Cities: A New Spatial Order, Blackwell,
10. Short, J. R. (1996): The Urban Order, Basil Blackwell. 10 Smith, N. (1996): The New Urban Frontier, Rutledge
11. King A. D. (1990): Global Cities, Rutledge

UNIVERSITY OF JAMMU
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(2-YEAR M.A./M.SC. COURSE) AS PER NATIONAL EDUCATION POLICY (NEP)-2020
M.A./M.SC. GEOGRAPHY, 2nd SEMESTER
(Detailed syllabus for examination to be held in May 2026, 2027 2028)

Course Code: P2GETP207 **Title: Physical Survey**
Credit: 4 **Max. Marks: 100**

- The main objective of this course is to make students familiar with the physical landscape.
- An effort is made to help them to identify different landforms while in the field and to map those landforms by using different cartographic techniques.
- Students are also told about the use of field instruments such as Dumpy Level, Theodolite/ Total Station in geographical studies.

Unit-I **Contract Hours**

Tract the prominent features of the area to be surveyed. Identify salient landform features of the selected area on the topographical sheet. (12)

Unit-II

Identify the landforms on the surface, while in the field. Also note the agents of erosion transportation and deposition associated with the landforms. (12)

Unit-III

Field Instrument Survey: Scope, purpose and application of Survey. Introduction, advantages, disadvantages and procedure of Dumpy level and Theodolite/ Total station. (12)

Unit-IV

Based on observations and data collected in the field write a report and prepare sheets for the data recorded with the help of instruments. (12)

Scheme of Examination:

MCQ on LMS + Subjective Test	Syllabus to be covered in the examination	Time allotted for the examination	%Weightage (Marks)
Practical / Research (thesis/project/patent)			
Internal Examination	100%	4 hours	50
External Examination	100%	4 hours	50
Total			100

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Course Code: P2GETP207 | **Title: Physical Survey**
Credit: 4 | **Max. Marks: 100**
Duration of Examination: 4 hrs. | **(a) Internal: 50**
(b) External:50

Scheme of Examination:

1	**Internal**	**Break up of marks**
(i)	Subject Matter	10
(ii)	Methodology	10
(iii)	Attendance	10
(iv)	Presentation	10
(v)	Viva Voce	10
2	**External**	
(i)	Practical Record/ Report	30
(ii)	Viva Voce	20
	Total:	**100**

External Practical/ Research (thesis/project/patent) examination

External Practical/ Research examination shall be conducted by Board of Examiners consisting of Head of the Department, one/two Senior Professors of concerned department, concerned teacher and outside expert to be appointed by the Vice-Chancellor out of the panel to be provided by the Head of the Department who shall evaluate/assess final practical performance/ dissertation of the students.

Suggested Readings:

1. Machumu, H. understanding Practical Geography: Map Work-Surveying-Fieldwork, GRIN Verlag, 2011.
2. Indian Council of Social Science Research.
3. T.P. Kanctkar and S.V. Kulkarrni, Surveying and leveling, Pune Vidyathi Griha Prakashan.
4. Zamir Ali (1994) "A Text Book of Surveying Vikas Publishing House Pvt. Ltd., New Delhi.
5. R.L. Singh and Rana P.S. Singh (2004) "Elements of Practical Geography", Kalyani Publishers, New Delhi.
6. Ashis Sarkar (2009), "Practical Geography – A Systematic Approach", Orient Blakswo Private Limited, Kolkata.
7. B.C. Punnia, Ashok Kumar Jain and Arun Kumar Jain (1993), "Surveying" Laxmi Publications, New Delhi.
8. Gopal Singh (2004), "Map Work and Practical Geography", Vikas Publishing House Pvt. Ltd. Delhi.

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Course Code: P2GETP208 **Title: Fundamentals of Remote Sensing**
Credit: 4 **Max. Marks: 100**

Objectives: The objective of the course is to introduce to the students the basic principles of remote sensing and the methods of digital interpretations of satellite images. To provide exposure to students in gaining knowledge on concepts and applications leading to modelling of earth resources management using Remote Sensing. To acquire skills in storing, managing digital data for planning and development. Geospatial analysis is a growing field of employment. The role includes analysis of data, design and use of this database. The work of a geospatial analyst varies greatly depending on which sector the student wants to work.

Unit-I	**Contract Hours**
1.1Remote Sensing meaning, definition, significance and utility.	(3)
1.2 History and development of Remote Sensing.	(3)
1.3 Advantages and limitations of Remote Sensing.	(3)
1.4 Stages of Remote Sensing and Remote Sensing Platforms.	(3)
Unit-II	
2.1 EMR and its properties.	(3)
2.2 Electromagnetic spectrum and characteristics of wavelength regions	(3)
2.3 EMR Atmospheric and surface interaction.	(3)
2.4 Satellites and their characteristics	(3)
Unit-III	
3.1 Aerial Photography and its geometry.	(3)
3.2 Relief displacement and image formation.	(3)
3.3 Classification of Aerial Photographs and their utility.	(3)
3.4 Elements of Visual Interpretation.	(3)
Unit-IV	
4.1 Digital Image: Pan/Multispectral imaging and color theory.	(3)
4.2 Digital Image Processing – Radiometric, Geometric and Atmospheric correction	(3)
4.3 Image Enhancement.	(3)
4.4 Image classification: Supervised and Unsupervised and Accuracy assessment.	(3)

Scheme of Examination:

MCQ on LMS + Subjective Test	**Syllabus to be covered in the examination**	**Time allotted for the examination**	**%Weightage (Marks)**
Practical / Research (thesis/project/patent)			
Internal Examination	100%	4 hours	50
External Examination	100%	4 hours	50
Total			100

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Course Code: P2GETP208 **Title: Fundamentals of Remote Sensing**
Credit: 4 **Max. Marks: 100**
Duration of Examination: 4 hrs. **(a) Internal: 50**
(b) External: 50

Scheme of Examination:

1	**Internal**	**Break up of marks**
(i)	Daily Evaluation of Practical Record	20
(ii)	Attendance	10
(iii)	Test+Viva-Voce+Practical Records (10+5+5)	20
2	**External**	
(i)	Test	36
(ii)	Viva	**9**
(iii)	Practical record	**5**
	Total	**100**

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Suggested Readings:

1. Sabins, Floyd F, 1986, Remote Sensing : Principles & Interpretation, Freeman, New York.
2. Lillesand, T.M. & Klefer, R.W. 1987, Remote Sensing and Image Interpretation, John Wiley & Sons, New York.
3. Curran, Paul J; 1985, Principles of Remote Sensing , Longman, London.
4. Estes, J.E. and L.W. Senger, 1974, Remote Sensing Techniques for Environmental Analysis, Hamilton, Santa Barbara, California.
5. Lillesand, Thomas M. and R.W. Klefer, 1987 Remote Sensing and Image Interpretation, John Wiley and Sons, New York.
6. Slater, P.N., 1980, Remote Sensing : Optics and Optical System, Addison – Wesley, Reading.
7. Jamles, B. CampBell, Introduction to Remote Sensing – 2nd Edi. Taylor & Francis, London.
8. Fazal, S. (2009), RemoteSensing Basics, Kalyani Pugblishers, New Delhi.
9. Reddy, A.(2001), Textbook of Remote Sensing and Geographical Information Systems, BS Publication Hyderabad.

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Course Code: P2GEVC251 | **Title: Map Digitization and Layout**
Credit: 4 | **Max. Marks: 100**
Duration of Examination: 3 hrs. | **(a) Internal: 50**
(b) External:50

Objective:
The objective of this course is to train the students in map digitization, Geodatabase creation, building topology, mapping and editing and GPS data acquisition.

Unit-I	**Contract Hours**
1.1 Geodatabase creation	(3)
1.2 Spatial data Integration (Digitization) – point, line, polygon.	(3)
1.3 Non-Spatial Data Integration.	(3)
1.4 Editing of Spatial & Non-Spatial data.	(3)

Unit-II	
2.1 Building Topology; Data Query.	(3)
2.2 Texture & Object based classification & Modeling.	(3)
2.3 Raster Data calculations.	(3)
2.4 Accuracy assessment.	(3)

Unit-III	
3.1 Mapping and editing.	(3)
3.2 Cartographic Symbolization, Generalization of Maps.	(3)
3.3 Types of Maps.	(3)
3.4 Map Design or Layout, Map Production.	(3)

Unit-IV	
4.1 GPS Data Collection	(3)
4.2 Geotagging	(3)
4.3 GPS Data Levelling	(3)
4.4 Onscreen Digitization	(3)

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Course Code: P2GEVC251 **Title: Map Digitization and Layout**
Credit: 4 **Max. Marks: 100**
Duration of Examination: 4 hrs. **(a) Internal: 50**
(b) External:50

Scheme of Examination:

1	**Internal**	**Break up of marks**
(i)	Daily Evaluation of Practical Record	20
(ii)	Attendance	10
(iii)	Test+Viva-Voce+Practical Records (10+5+5)	20
2	**External**	
(i)	Test	36
(ii)	Viva	**9**
(iii)	Practical record	**5**
	Total	**100**

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2. Lillesand, T.M. & Klefer, R.W. 1987, Remote Sensing and Image Interpretation, John Wiley & Sons, New York.
3. Curran, Paul J; 1985, Principles of Remote Sensing , Longman, London.
4. Estes, J.E. and L.W. Senger, 1974, Remote Sensing Techniques for Environmental Analysis, Hamilton, Santa Barbara, California.
5. Lillesand, Thomas M. and R.W. Klefer, 1987 Remote Sensing and Image Interpretation, John Wiley and Sons, New York.
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