



PANJAB UNIVERSITY, CHANDIGARH-160014 (INDIA)
(Estd. under the Panjab University Act VII of 1947—enacted by the Govt. of India)

FACULTY OF ARTS

SYLLABI

FOR

M.A. GEOGRAPHY (SEMESTER SYSTEM)
EXAMINATIONS, 2012-2013

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**APPLICABILITY OF REGULATIONS FOR THE TIME
BEING IN FORCE**

Notwithstanding the integrated nature of a course spread over more than one academic year, the regulations in force at the time a student joins a course shall hold good only for the examinations held during or at the end of the academic year. Nothing in these regulations shall be deemed to debar the University from amending the regulations subsequently and the amended regulations, if any, shall apply to all students whether old or new.

GUIDELINES FOR CONTINUOUS INTERNAL ASSESSMENT (20%) FOR REGULAR STUDENTS OF POST-GRADUATE COURSES of Geography (Semester System) (Effective from the First Year Admissions for the Academic Session 2008-2009)

1. The Syndicate has approved the following guidelines, mode of testing and evaluation including Continuous Internal Assessment of students :

- (i) Terminal Evaluation : 80 %
- (ii) Continuous Assessment : 20 %
- (iii) Continuous Assessment may include written assignment, snap tests, participation in discussions in the class, term papers, attendance etc.
- (iv) In order to incorporate an element of Continuous Internal Assessment of students, the Colleges/Departments will conduct **one** written test as quantified below :

(a)	Written Test	:	25 (reduced to 5)
(b)	Snap Test	:	25 (reduced to 5)
(c)	Participation in Class discussion	:	15 (reduced to 3)
(d)	Term Paper	:	25 (reduced to 5)
(e)	Attendance	:	10 (reduced to 02)

Total : 100 reduced to 20

2. Weightage of 2 marks for attendance component out of 20 marks for Continuous Assessment shall be available only to those students who attend 75% and more of classroom lectures/seminars/workshops. The break-up of marks for **attendance component** for theory papers shall be as under :

<i>Attendance Component</i>	<i>Mark/s for Theory Papers</i>
(a) 75 % and above upto 85 %	1
(b) Above 85 %	2

3. It shall **not be compulsory** to pass in Continuous Internal Assessment. Thus, whatever marks are secured by a student out of 20% marks, will be carried forward and added to his/her score out of 80 %, i.e. the remaining marks allocated to the particular subject and, thus, he/she shall have to secure pass marks both in the University examinations as well as total of Internal Continuous Assessment and University examinations.

4. Continuous Internal Assessment awards from the affiliated Colleges/Departments must be sent to the Controller of Examinations, by name, **two weeks before** the commencement of the particular examination on the *proforma* obtainable from the Examination Branch.

SPECIAL NOTE :

- (i) The theory question paper will be of 80 marks and 20 marks will be for internal assessment.
- (ii) In the case of Postgraduate Course in the Faculties of Arts, Science, Languages, Education, Design & Fine Arts, and Business Management & Commerce (falling under the purview of Academic Council), where such a provision of Internal Assessment/Continuous Assessment already exists, the same will continue as before.

(ii)

SEMESTER-III (for the examination of November/December, 2012)

	<i>Title</i>	<i>Marks</i>	<i>Credits</i>
Paper-I	: Town and Country Planning	100	4
Paper-II	: Research Methodology in Geography	100	4
Paper-III	: Fundamentals of GIS and GPS (Theory and Practical)	100	4
Paper-IV	: Any one of the following optional courses:		
	:		

**OUTLINES OF TESTS, SYLLABI AND COURSES OF READING FOR M.A. GEOGRAPHY
(SEMESTER SYSTEM) W.E.F. ADMISSION, 2012**

SEMESTER-I

There will be four papers, three compulsory and one optional (out of the offered optional papers), of 100 marks each including practical examination as under :

	<i>Title</i>	<i>Marks</i>	<i>Credits</i>
Paper-I	Geographic Thought	100	4
Paper-II	Geomorphology	100	4
Paper-III	Cartography (Theory and Practical)	100	4
Paper-IV	<i>Any one of the following optional courses:</i>		
Option (i)	:		
Option (ii)	:		
Option (iii)	:		
C			

BOOKS RECOMMENDED:**Essential Readings :**

1. Barnes, T.J., The Place of Locational Analysis : A Selective and Interpretive History, Progress in Human Geography 27 : 169-195, 2003.
2. Dikshit, R. D. (ed.), Geographical Thought : A Contextual History of Ideas, Prentice Hall of India, New Delhi, 1999.
3. Dikshit, R. D. (ed.), The Art & Science of Geography, Integrated Readings, Prentice Hall of India, New Delhi, 1994.
4. Hartshorne, R., The Nature of Geography, Association of American Geographers, Fourth Print, 1939.
5. Hartshorne, R., Perspectives on the Nature of Geography, Rand, McNally & Co., 1959.
6. Harvey, D., Explanation in Geography, Edward Arnold, London, 1973.
7. Husain, M., Evolution of Geographic Thought, Rawat Pub., Jaipur, 1988.
8. Johnston, R. J., The Future of Geography, Methuen, London, 1988.
9. Peet, Richard, Modern Geographical Thought, Blackwell, Massachusettes, First Indian Reprint, 2004.
10. Preston E. James,

5. Board, Christopher, R.J., Haggett, P., Stoddart, D.R. (ed.), Progress in Geography: International Review of Current Research, Vol. I to VIII, Edward Arnold, London.
6. Jensen, A.H., Geography : Its History and Concepts, Sage Publications, Thousand Oaks, London, Thousand Oaks, New Delhi, 1999.
7. Johnston, R. J. & Claval, P., Geography Since the Second World War: An International Survey, Crown Halm, Sydney, 1984.
8. Johnston, R. J. and Sidaway, J.D., Geography and Geographers: Anglo-American Human Geography Since 1945, Arnold, London, 2004.
9. Johnston, R. J.,

UNIT-II

- (iv) Earth Movements: Epeirogenic, orogenic, cymatogenic.
- (v) Morphogenetic regions.
- (vi) Mass movement of debris.

UNIT-III

- (vii) Volcanic topography.
- (viii) Karst topography.
- (ix) Fluvial, Aeolian, Glacial and Marine Landforms and their processes.

UNIT-IV

- (x) Models of landscape evolution and slope development: Ideas of Davis, Penck, and King.
- (xi) Multicyclic and polygenetic evolution of landscapes.

- Note :*
1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 parts in about 25-30 words each. Each part shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus at least *two* from each unit. The candidates will attempt *four* questions selecting one from each unit. These will be in addition to the compulsory question at serial number 1 and each question will carry 15 marks.
 3. Internal assessment may include written assignments, snap tests, participation in discussion in the class, term papers, attendance etc.
 4. For reappear/improvement candidates(s), who have not been assessed earlier for internal assessment, the marks secured by them in theory paper will be increased proportionally to maximum marks of the paper in lieu of internal assessment. **The paper setter must put note (4) in the question paper.**

BOOKS RECOMMENDED :**Essential Readings :**

1. Bloom, Arthur L., *Geomorphology: A Systematic Analysis of Late Cainozoic Landforms*, Pearson Education, Singapore, 3rd Edition, 2003.
2. Davis, W. M., *Geographical Essays*, Dover, Boston, 1909.
3. Fairbridge, R.W., *Encyclopedia of Geomorphology*, Reinhold, New York, 1969.

Objectives :

The objective of this course is to promote awareness of the M.A. students of the various cartographic techniques available for graphic representation of relief, population, agriculture, industrial and transport data, the steps of construction of the techniques their merits and demerits. An effort is made to help them develop manual skills of drawing maps based on some of the above-mentioned data. They are also told about benefits of GIS and computer-assisted cartography.

UNIT-I

- (i) Cartography - Nature, history and recent trends.
- (ii) GIS and Computer Assisted Cartography (four practical exercises as per the availability of equipment/hardware & software).
- (iii) Types of data and symbols.

UNIT-II*Landform Mapping and Analysis :*

- (iv) Problems of Landform Mapping : Elementary conventional methods and profiles (serial, longitudinal, superimposed, composite and projected).

UNIT-III

- (v) Calculation of Gradient, scales of slopes. Methods of slope analysis; Wentworth, Henry and Raisz, Robinson.
- (vi) Mapping of climatic data: Temperature and Rainfall.

UNIT-IV

- (vii) Representation of Population data.
- (viii) Representation of Agriculture data.

- Note :*
1. A compulsory question containing 10 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 7 parts in about 25-30 words each. Each part shall carry 2 marks (total 14 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least *two* from each unit. The candidates will attempt *four* questions selecting one from each unit carrying nine marks. These will be in addition to the compulsory question at serial number 1.
 3. Each candidate shall prepare a Practical File containing at least 15 exercises under the supervision and guidance of the teacher concerned. The candidate shall submit his Practical File at least 10 days before the commencement of the theory examination to the concerned department duly approved and signed by the faculty member teaching the course.

Paper- IV : *Any one of the following optional courses:*

Option (i) : Fundamentals of Population Geography

Max. Marks : 100

Terminal Exam. : 80 Marks

Internal Assessment

UNIT-IV

- (vi) A comparative study of the population problems and policies of developed and less developed countries with special focus on the following countries :
- (a) Developed: Canada, Japan.
 - (b) Less developed: China, India.

- Note :*
1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 parts in about 25-30 words each. Each part shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least *two* from each unit. The candidates will attempt *four* questions selecting one from each unit. These will be in addition to the compulsory question at serial number 1 and each question will carry 15 marks.
 3. Internal assessment may include written assignments, snap tests, participation in discussion in the class, term papers, attendance etc.
 4. For reappear/improvement candidates(s), who have not been assessed earlier for internal assessment, the marks secured by them in theory paper will be increased proportionally to maximum marks of the paper in lieu of internal assessment. **The paper setter must put note (4) in the question paper.**

BOOKS RECOMMENDED :**Essential Readings :**

1. Chandna, R.C., Regional Planning and Development, Kalyani Publishers, New Delhi, 2008.
2. Chandna, R.C., A Geography of Population (9th Edition), Kalyani Publishers, New Delhi, 2010.
3. Chandna, R.C., Jansankhya Bhoogol (Hindi – 7th Edition), Kalyani Publishers, New Delhi, 2010.
4. Clarke, J.L., Population Geography, Pergamon Press Oxford9 (2nd edition), 1972.
5. Demko, G.J. et. al., Population Geography: A Reader, McGraw Hill Books Co., New York, 1971.
6. Hauser, P.M. & Duncan, O.D., The Study of Population, University Press Chicago, 1959.
7. Hornby, F. William and Jones, M., An Introduction to Population Geography, Cambridge University Press, Cambridge, 1987.
8. Hussain Majid, Human Geography, Jaipur, Rawat Publication (3rd edition), 2006-10.

OR

Option (ii) : Fundamentals of Agricultural Geography

Max. Marks

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2. A total of eight questions will be set out of the whole syllabus, at least *two* from each unit. The candidates will attempt *four* questions selecting one from each unit. These will be in addition to the compulsory question at serial number 1 and each question will carry 15 marks.
3. Internal assessment may include written assignments, snap tests, participation in discussion in the class, term papers, attendance etc.
4. For reappear/improvement candidates(s), who have not been assessed earlier for internal assessment, the marks secured by them in theory paper will be increased proportionally to maximum marks of the paper in lieu of internal assessment. **The paper setter must put note (4) in the question paper.**

BOOKS RECOMMENDED :

Essential Readings :

1. Hussain, M., Systematic Agricultural Geography, Rawat Publications, Jaipur, 1996.
2. Ilbery, B. W., Agricultural Geography, Oxford University Press, Oxford, 1985.
3. Singh, J. and Dhillon, S.S., Agricultural Geography, Tata McGraw Hill, New Delhi, 1984.
4. Singh, Jasbi Q q Bb

Pedagogy :

UNIT-IV

- (vi) Federalism : Definition, concept, approaches and types, geography and federalism.
- (vii) Place of electoral study in political geography; geographical approaches to the study of elections; Electoral abuse.

- Note :*
1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt all 10 parts in about 25-30 words each. Each part shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least *two* from each unit. The candidates will attempt *four* questions selecting one from each unit. These will be in addition to the compulsory question at serial number 1 and each question will carry 15 marks.
 3. Internal assessment may include written assignments, snap tests, participation in di

3. Edward K. Bergman, Modern Political Geography, WMC Brown Company, Dubuque, Iowa, 1975.
4. Goblet, Y. M., Political Geography and the World Map, Philip & Sons, London, 1955.
5. Muir, Richard, Modern Political Geography, Macmillan, London, 1995.
6. Percy, G. E. et.al., World Political Geography, Second Edition, Thomas Y. Growell Company, New York, 1957.
7. Pounds, N.J.G., Political Geography, 2nd Ed., McGraw-Hill, N.Y., 1972.
8. Short, John R., An Introduction to Political Geography, Routledge & Kegan Paul, London, 1982.

Pedagogy :

The students should be encouraged to engage in classroom discussions on the geographical aspects of political problems at the national and international levels.

OR

Option (iv) : Geographical Perspectives on Sustainable Development

Max. Marks	:	100
Terminal Exam.	:	80 Marks
Internal Assessment	:	20 Marks
Time	:	3 Hours

Objectives : The course aims at creating better understanding of sustainable development and of the geographical perspectives of it. Being concerned with the planet as a whole, geographers are ideally suited to studying sustainable development, a field of truly global truly global

BOOKS RECOMMENDED :**Essential Readings :**

1. Adams, W.M. (2001), Green Development : Environment and Sustainability in Developing Countries, 2nd edition, Routledge, London.
2. Barbier, E.B. (1987), The Concept of Sustainable D

3. Internal assessment may include written assignments, snap tests, participation in discussion in the class, term papers, attendance etc.
4. For reappear/improvement candidate(s), who have not been assessed earlier for internal assessment, the marks secured by them in theory paper will be increased proportionally to maximum marks of the paper in lieu of internal assessment. **The paper setter must put note (4) in the question paper.**

BOOKS RECOMMENDED :

Essential Readings :

- 1.

3. Goudie, A.S. and Thomas, D.S.G.,

SEMESTER II

Outlines of Tests

Course Content :**UNIT-I**

- (i) Climatology : History, development, subdivisions, importance.
- (ii) The earth's atmosphere : Composition and structure.
- (iii) Atmospheric energy and terrestrial radiation : Solar radiation; mechanism of heat transfer (conduction, convection, radiation); distribution of solar radiation over the earth; global radiation budget.
- (iv) Temperature : C

BOOKS RECOMMENDED :**Essential Readings :**

1. Barry, R.G. & Chorley, R.J., Atmosphere, Weather and Climate, Methuen Co. Ltd., London, 5th Edition, 1987.
2. Bhutani, Smita, Our Atmosphere, Kalyani Publishers, Ludhiana, 2000.
3. Critchfield, H.J., General Climatology, Prentice Hall, N.J., 1975.
4. Frederick K. and Edward J. Tarbuck, The Atmosphere: An Introduction to Meteorology, Prentice Hall of India Pvt. Ltd., New Delhi, 1995.
5. Strahler, A.N., Modern Physical Geography, John Wiley and Sons, New York, Singapore, 1987.
6. Trewartha, G.T., An Introduction to Climate, McGraw Hill, New York, 1980, Fifth Edition (International Student Edition).

Further Readings :

1. Lydolph, P.E., The Climate of the Earth, Rowman Nad Allanheld, Totowa, New Jersey, 1985.
2. Rumney, G.R., Climatology and the World Climates, Macmillan, London, 1968.
3. Thompson Russell D., Applied Climatology - Principles & Practice, John Willey, New York, 1997.

Pedagogy :

If possible, audio-visual aids will be arranged to explain weather phenomena to the students. Visits for the students to the nearest Weather Observatory and Meteorological Department will be arranged to know the functioning of various weather instruments and to understand weather conditions with the help of Weather and Climate Charts.

Paper-II : Geography of India (Systematic and Regional)

Max. Marks	:	100
Terminal Exam.	:	80 Marks
Internal Assessment	:	20 Marks
Time	:	3 Hours

Objectives :

To provide an understanding of :

The geographic dimensions of India in terms of its political and administrative characteristics.

The physical and climatic attributes and their interface with developmental strategies.

The human and economic dimensions of India in a spatial perspective.

BOOKS RECOMMENDED :

Essential Readings :

1. Chandna, R.C. :

Further Readings :

1. Barret, E. C. and Curtis, L. F., Introduction to Environmental Remote Sensing, Chapman and Hall, London, 1976.
2. Barret, E.C. and Curtis, L. F., Environmental Remote Sensing, Applications and Achievements, Edward Arnold, London, 1974.
3. Colwell, R. N. (ed.), Manual of Remote Sensing, 2nd ed., Falls Church, Va.: American Society of Photogrammetry, 1983.
4. Easts, J. E. and Sanger, L. W. (ed.), Remote Sensing Techniques for Environmental Analysis, Hamilton Publishing Co., Santa Barbara, 1974.
5. Garnett, William, Map Projections, George Phillip and Sons, London.
6. Jameson, A.H. and Ormsby, M.T.M., Mathematical Geography, Vol. I, Issac Pitman and Sons, London.
7. Lueder, D. R., Aerial Photographic Interpretation, McGraw Hill, New York, 1950.
8. Reeves, Robert, G. (ed.), Manual of Remote Sensing (2 Vols.), The American Society of Photogrammetry, Falls Church, Virginia, 1975.
9. Robinson, Arther, H. et.al, Elements of Cartography, 6th edition, John Willey & Sons, New York, 1995.
10. Tomar, M. S. and Maslekar, A. R., Aerial Photographs in Landuse and Forest Surveys, Jugal Kishore and Co., Dehradun, 1974.
11. Verstappan, H. Th., Remote Sensing in Geomorphology, Elsevier Scientific Publishing Co., Amsterdam, 1977.
12. Verbyla, David, L., Satellite Remote Sensing of Natural Resources, Lewis Publishers, New York, 2005.

Pedagogy :

Basic fundamentals of map projection are introduced by demonstrating construction exercises in the class. Students are provided aerial photographs and trained to identify and map physical and cultural features. Instruments such as pocket and mirror stereoscope are used to prepare stereo models. Students are given simple exercises on photogrammetry.

Paper- IV : *Any one of the following optional courses:*

Option (i): Urban Geography

Max. Marks : 100
Terminal Exam. : 80 Marks

UNIT -IV

- (viii) Urban systems : Definition, models of city size distribution; urban system in India.
- (ix) Classification of urban places :
 - (a) Non-functional classification.
 - (b) Functional Classification : Comparison of methods of functional classification.
- (x) Contemporary Urban Issues : Slums, pollution.

- Note :*
1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 parts in about 25-30 words each. Each part shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least *two* from each unit. The candidates will attempt *four* questions selecting one from each unit. These will be in addition to the compulsory question at serial number 1 and each question will carry 15 marks.

8. Singh, R.L. : Urban Geography in Developing Countries, National Geographical Society of India, Varanasi, 1973.
9. Smailes, A.E. : Geography of Towns, Hutchinson, London, 1965.

UNIT-II

- (iii) Population growth in the context of :
 - (a) Manpower and employment.
 - (b) Educational planning.
 - (c) Housing needs.
 - (d) Health and family planning.

- (iv) Population distribution, migration and development.

UNIT-III

- (v) Population and environment.
- (vi) Population and world's Forests.
- (vii) Population and poverty.

3. Internal assessment may include written assignments, snap tests, participation in discussion in the class, term papers, attendance etc.
4. For reappear/improvement candidate(s), who have not been assessed earlier for internal assessment, the marks secured by them in theory paper will be increased proportionally to maximum marks of the paper in lieu of internal assessment. **The paper setter must put note (4) in the question paper.**

BOOKS RECOMMENDED :

Essential Readings :

1. Allan, S., Adam, B. and Carter, C. (eds.) (2000), Environmental Risks and the Media, Routledge, London.
2. Ambala-Bertrand, J.M. (1993), Political Economy of Large Natural Disasters : With Special Reference to Developing Countries, Clarendon Press, Oxford.
3. Blaikie, P. and Others (1994), At Risk : Natural Hazards, People's Vulnerability and Disasters, Routledge, London.
4. Burton, I., Kates, R.W. and White, G.F. (1993), Environment as Hazard, 2nd edition, Guilford Press, New York.
5. Hewitt, K. (1997), Regions of Risk : A Geographical Introduction to Disasters, Longman, London.

Further Readings :

1. Kasperson, J.X., Kasperson, R.E. and Turner, B. L. (1995), Regions at Risk : Comparisons of Threatened Environments, United Nation University Press, Tokyo.
2. Mitchell, J.K. (ed.), (1999), Crucibles of Hazard : Mega-Cities and Disasters in Transition, United Nations University Press, New York.
3. Quarantelli, E.L. (ed.), (1998), What is a Disaster? Perspective on the Question, Routledge, London.
4. Schneid, T. and Collins, L. (1998), Disaster Management and Preparedness, Lewis Publishers, Washington, D.C.
5. Godschalk, D.R. et.al. (1999), Natural Hazard Mitigation: Recasting Disaster Policy and Planning, Island Press, Washington, D.C.
6. Paraswamam, S. and Umikrishnan, P.V. (2000), India : Disaster e2 1 117.12 176. 0 rg1 rg 0. q BT 5(h)-24(1 186.9

Pedagogy :

The students should be explained the interactive relationship between the natural and human processes. The platform from which we see this relationship remains human activities. Illustrations should be used from the latest articles on the subject appearing in geographic journals and newspapers and field visits.

OR**Option (iv) : Marketing Geography**

Max. Marks	:	100
Terminal Exam.	:	80 Marks
Internal Assessment	:	20 Marks
Time	:	3 Hours

Objectives :

Main objective of the course is to provide an insight into the marketing systems, their development, classification and relevance in the context of regional development.

Course Content :**UNIT-I**

- (i) Nature and scope of Geography of Marketing.
- (ii) Approaches : Functional, morphological, cultural-

- Note :*
1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 parts in about 25-30 words each. Each part shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least *two* from each unit. The candidates will attempt *four* questions selecting one from each unit. These will be in addition to the compulsory question at serial number 1 and each question will carry 15 marks.
 3. Internal assessment may include written assignments, snap tests, participation in discussion in the class, term papers, attendance etc.
 4. For reappear/improvement candidate(s), who have not been assessed earlier for internal

Pedagogy :

- Note :*
1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 parts in about 25-30 words each. Each part shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least *two* from each unit. The candidates will attempt *four* questions selecting one from each unit. These will be in addition to the compulsory question at serial number 1 and each question will carry 15 marks.
 3. Internal assessment may include written assignments, snap tests, participation in discussion in the class, term papers, attendance etc.
 4. For reappear/improvement candidate(s), who have not been assessed earlier for internal assessment. The marks secured by them in theory paper will be increased proportionally to maximum marks of the paper in lieu of internal assessment.
The paper setter must put note (4) in the question paper.

BOOKS RECOMMENDED :

Essential Readings :

1. Agnew, J.A. and Corbridge, S. (1995), *Mastering Space : Hegemony, Territory and International Political Economy*, Routledge, London.
2. Benko, G. and Strohmayr, U. (1997), *Space and Social Theory : Interpreting Modernity and Postmodernity*, Blackwell Publishers, Oxford, London.
3. Bhabha, H. (1994), *The Location of Culture*, Routledge, London and New York.
4. Corbridge, S., Martin, R. and Thrift, N. (1997), *Money, Power and Space*, Blackwell, Oxford.
5. Derek, G., Martin, R., and Smith, G. (1994), *Human Geography : Society, Space and Social Science*, Macmillan Publishers, Cambridge.
6. Johnston, R.J. (1991), *A Question of Place : Exploring the Practice of Human Geography*, Blackwell Publishers, Cambridge.

Further Readings :

1. Harvey, D. (1996), *Justice, Nature and Geography of Difference*, Blackwell Publishers, Cambridge.
2. Massey, D. (1998),

SEMESTER III**Outlines of Tests**

There will be four papers, three compulsory and one optional (out of the offered optional papers) of 100 marks each including practical examination as under :

SEMESTER III (for the examination of November/December 2012)

<i>Paper</i>	<i>Title</i>	<i>Marks</i>	<i>Credits</i>
Paper-I	Town and Country Planning	100	4
Paper-II	Research Methodology in Geography	100	4
Paper-III	Fundamentals of GIS and GPS (Theory and Practical)	100	4
Paper-IV	<i>Any one of the following optional courses :</i>		
Option (i)	: Regional Development and Planning in India	100	4
Option (ii)	: Special Themes in Agricultural Geography	100	4
Option (iii)	: Bio Geography	100	4
Option (iv)	: Ecology and Environmental Geography		

Course Content :**UNIT-I**

- (i) Human Settlement : A brief history with its relevance in modern context.
- (ii) Settlement System : Types and Functions.
- (iii) Town and Country Planning Practice in India.

UNIT-II

- (iv) Town Planning - Definition, nature, importance and scope.
- (v) Preparation of town plan - Statement of objectives, surveys and data collection for town planning with special reference to urban land surveys, formulation of policies, zoning, locational and space requirements for residential, work, and play areas.
- (vi) Planning of transport and public utilities.
- (vii) Problems of town planning in India.
- (viii) Urban planning policies in Indian Five Year Plans.
- (ix) Indian town planning experiences - Master Plan of Delhi and Chandigarh.

Country Planning :**UNIT-III**

- (x) Country Planning : Definition, nature, importance and scope.
- (xi) Rural landuse and its determinants.
- (xii) Rural landuse, land suitability, and soil surveys.

UNIT-IV

- (xiii) Rural development in India during Five Year Plans.
- (xiv) Planning for the following problems of rural India:
 - (a) Drinking water, (b) Floods and Soils, (c) Public utility services, and (d) Poverty and employment.

Note : 1. A compulsory question containing 15 short answer type questions shall be set covering the

2. A total of eight questions will be set out of the whole syllabus, at least *two* from each unit. The candidates will attempt *four* questions selecting one from each unit. These will be in addition to the compulsory question at serial number 1 and each question will carry 15 marks.
3. Internal assessment may include written assignments, snap tests, participation in discussion in the class, term papers, attendance etc.
4. For reappear/improvement candidates(s), who have not been assessed earlier for internal assessment, the marks secured by them in theory paper will be increased proportionally to maximum marks of the paper in lieu of internal assessment.

The paper setter must put note (4) in the question paper.

BOOKS RECOMMENDED :

Essential Readings :

1. Bhardwaj, R.K., Urban Development in India, National Book Trust, New Delhi, 1974.
2. Chapin, F.S. & Kaiser Edward J., Urban Landuse Planning, Harper Bros., New York, 3rd Ed., 1985.
3. Jackson, J., Surveys for Town and Country Planning, Hutchinson University Library, London, 1966.
4. Modak, V.N. and V.N. Ambedkar, Town and Country Planning and Housing, Oriental Longman, New Delhi, 1971.
5. TCPO, Regional Planning Efforts in India, Government of India, New Delhi, 1985.

Further Readings :

Government of India, Report of the National Commission on Urbanisation, Vols. I & II, Ministry of Urban Development, New Delhi, 1988.

Government of India, Plan Drafts of Different Five-Year Plans, Planning Commission, New Delhi.

Pedagogy :

Distribution of a brief synopsis among students, prior to discussions in the class, on each topic, involving students in teaching and question-answer session at the end of each lecture will form the core of approach to class teaching. Listing on the black board the main headings of the theme to be discussed and the use of audio-visual aids, such as maps, transparencies and slides will be the guiding principle of teaching methodology. Organizing occasional field visits and inviting professionals as a guest faculty will be used to create

Paper-II : Research Methodology in Geography

Max. Marks	:	100
Terminal Exam.	:	80 Marks
Internal Assessment	:	20 Marks
Time	:	3 Hours

Course Content :

UNIT-I

- (i) Introduction :

BOOKS RECOMMENDED :**Essential Readings :**

1. Chang, Kang-tsung : Introduction to Geographic Information Systems, 4th ed., Tata McGraw-Hill Publishing Company Limited, New Delhi, 2008.
2. DeMeers, Michael N. : Fundamentals of Geographic Information Systems, 3rd. ed., John Wiley and Sons, Toronto, 2005.
3. Fazal, S. : GIS Basics, New Age International Publishers, New Delhi, 2008.
4. Fazal, S. and Rahman, A. : Geographic Information System (GIS) Terminology, New Age International Publishers, New Delhi, 2007.
5. Heywood, Ian Cornelius, Sarah and Steve Carver. : An Introduction to Geographical Information Systems, 2nd ed., Pearson Education Limited, Toronto, 2006.
6. Siddiqui, M.A. : Introduction to Geographical Information Systems, Sharda Pustak Bhavan, Allahabad, 2006.

Further Readings :

1. Aronoff, S. : Geographic Information Systems : A Management Perspective, WDL Publications Ottawa, Canada, 1992.
2. Burrough, Peter A. and Rachael A. McDonnell. : Principles of Geographical Information Systems, Oxford University Press, Toronto, 1998.
3. ESRI : Understanding GIS, Environmental Systems Research Institute, U.S.A., 1993.
4. Jeffrey, S. & John, E. : Geographic Information Systems – An Introduction, Prentice Hall, New Jersey, USA, 1990.
5. Lo, C.P and Albert K.W., Yeung : Concepts and Techniques of Geographic Information Systems, 2nd ed., Pearson Education Inc., Toronto, Canada, 2007.
6. Longley, Paul A., Goodchild, Michael F. Maguire, David J., and David W. Rhind. : Geographic Information Systems and Science, 2nd ed., John Wiley and Sons, England, 2005.
7. Longley, Paul A., Goodchild, Michael F., Maguire, David J., and David W. Rhind. : Geographical Information Systems, 2nd ed., John Wiley and Sons, Inc., New Jersey, 2005.

UNIT-IV

(vi) Development plans for tribal areas, north- eastern region, command areas, KBK region of Orissa.

- Note :*
1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 parts in about 25-30 words each. Each part shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least *two* from each unit. The candidates will attempt *four* questions selecting one from each unit. These will be in addition to the compulsory question at serial number 1 and each question will carry 15 marks.

10. Mohan, K., Addressing Regional Backwardness, An Analysis of Area Development Programmes in India, Manak Publications, New Delhi, 2005.
11. Raza, Moonis (ed.), Regional Development, Heritage Publishers, Delhi, 1988.
12. Radha Krishna, R, India Development Report, Oxford University Press, 2008.
13. World Development Report : Sustainable Development in a Dynamic World, Transforming Institutions, Growth and Quality of Life, OUP, 2003.
14. World Development Report : Reshaping Economic Geography, The World Bank, 2009.

Further Readings :

1. Blij, H.J. and Peter O. Muller, Geography, Realms, Regions and Concept (Seventh Edition), John Wiley & Sons, Inc., New York, 1994.
2. Government of India, Report of the Working Group on District Planning (Vols. I and II) New Delhi, 1985.
3. Govt. of India, Five Year Plans, Plan 1st-11th Plan, Planning Commission, New Delhi.
4. Gulati, I.S. (ed.), Centre-State Budgetary Transfers, Oxford University Press, Delhi, 1988.
5. Jain, L.C. and Others, Grass without Roots, Rural Development under the Government Auspices, Sage Publications for Institute of Social Studies, 1985.
6. Kundu, A. and Raza, M., Indian Economy, The Regional Dimensions, Centre for the Study of Regional Development, JNU, New Delhi, 1982.
7. Kant, S. et al., Reinventing Regional Development, Rawat Publications, N. Delhi, 2004.
8. Misra, R.P. et al., Regional Develo

Pedagogy :

The students should be encouraged to participate in classroom discussions on the regional dimensions of planning and regional development in India in terms of spatial structure of economy, society and associated

UNIT-IV

Indian agriculture - Its characteristics and problems.

Agricultural policy in India.

- Note :*
1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 parts in about 25-30 words each. Each part shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least

Pedagogy :

The students should be acquainted with the development of agriculture over time and space in the world, and with the various models in agricultural geography. They should be sensitized to identify types of farming being practiced in different parts of India along with the problems, policy and the process of agricultural transformation especially after the mid 1960's.

Option (iii) : Biogeography

Max. Marks	:	100
Terminal Exam.	:	80 Marks
Internal Assessment	:	20 Marks
Time	:	3 Hours

Objectives :

To introduce the student to the concept of biogeography, its interpretation and application; interaction between living organisms with climate and physical environment with special reference to India.

Course Content :**UNIT-I**

Biogeography, nature, scope, significance, approaches, history, recent developments.

Spatial dimension in biogeography, pattern and causes of plant and animal distributions, factors influencing the distribution of life, biogeographical regions and realms.

UNIT-II

Historical biogeography, Patterns of life in the past and today.

Biodiversity and the source of novelty in life.

UNIT-III

Biogeography of the seas; island biogeography.

Habitat fragmentation; biogeography of linear landscape features.

UNIT-IV

Biogeographical information, collection, retrieval and application.

Projecting into the future : Climate change; biogeographicm [()] TJ ET phip0e to Indiaa4 132Ce2 10.08 Tf 0 0 0 rg 0.99

- Note :*
1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 parts in about 25-30 words each. Each part shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least *two* from each unit. The candidates will attempt **four** questions selecting one from each unit. These will be in addition to the compulsory question at serial number 1 and each question will carry 15 marks.
 3. Internal assessment may include written assignments, snap tests, participation in discussion in the class, term papers, attendance etc.
 4. For reappear/improvement candidate(s), who have not been assessed earlier for internal assessment, the marks secured by them in theory paper will be increased proportionally to maximum marks of the paper in lieu of internal assessment. **The paper setter must put note (4) in the question paper.**

BOOKS RECOMMENDED :

Essential Readings :

1. Brown, J. H., & A. C. Gibson, Biogeography, St. Louis, Mosby, 1983.
2. Brown, J.H. and Lomolino, M.V., Biogeography, Second Edition, Sinauer Associates, Inc. Sunderland, Massachusetts, 1998.
3. Cox, C.B., Moore, P.D., Biogeography, An Ecological and Evolutionary Approach, 5th ed., Blackwell Science, Cambridge, 1993.
4. MacDonald, Glen, Biogeography : Introduction to Space, Time and Life, John Wiley, New York, 2002.
5. Robinson, H., Biogeography, The English Language Book Society and Macdonald and Evans, London, 1982.
6. Spellerberg, MIK6.4 235.441

Further Readings :

1. Dansereau, P., Biogeography, An Ecological Perspective, Ronald Press, New York, USA, 1957.
2. Kormondy, Edward J., Concepts of Ecology, Third Edition, Prentice Hall of India, New Delhi, 1989.
3. Mani, M.S. (ed.), Ecology and Biogeography in India, Dr. W. JUNK b.v. Publishers, The Hague, 1974.
4. Mathur, H.S., Essentials of Biogeography, Pointer Publishers, Jaipur, 1988.
5. Mielke, Howard W., Patterns of Life : Biogeography of a Changing World, Unwin Hyman : London, 1989.
6. Myers, A. A. & P. S. Giller (ed.), Analytical Biogeography : An Integrated Approach to the Study of Animal and Plant Distributions, Chapman & Hall, London, 1989.
7. Odum, Eugene P., Fundamentals of Ecology, Natraj Publishers, Dehra Dun, 1971.
8. Osborne, Patrick, Tropical Ecosystems and Ecological Concepts, Cambridge University

Pedagogy :

The students should be taken on field visits to the local floral-fauna zones; they should be acquainted with the local biogeography of the areas. Seminars/lectures should be organized where speakers from the allied disciplines—environmental sciences, ecology, biosciences, should be invited to discuss with the students various issues of biogeography with a multidisciplinary approach.

Option (iv) : Social Geography

Max. Marks :

UNIT-II

- (iii) Evolution of socio-cultural regions in India :
 - (a) Evidence from classical literature.
 - (b) Core and peripheral regions.

- (iv)

BOOKS RECOMMENDED :

Essential Readings :

1. Ahmad, Aijazuddin : Social Geography, Rawat Publications, New Delhi, 1999.
2. Jones, Emrys and John Eyles : An Introduction to Social Geography, Oxford University Press, London, 1977.
3. Jones, Emrys (ed.) : Readings in Social Geography, Oxford University Press, London, 1975.
- 4.

Option (vi) : Applied Climatology

Max. Marks	:	100
Terminal Exam.	:	80 Marks
Internal Assessment	:	20 Marks
Time	:	3 Hours

Objectives :

The objective of the course is to introduce and discuss the basic topics of applied climatology and how these concepts can be useful in everyday planning and operations.

Course Content :**UNIT-I**

- Note :*
1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 parts in about 25-30 words each. Each part shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least *two* from each unit. The candidates will attempt *four* questions selecting one from each unit. These will be in addition to the compulsory question at serial number 1 and each question will carry 15 marks.
 3. Internal assessment may include written assignments, snap tests, participation in discussion in

3. Trewartha, G.T., *An Introduction to Climate*, McGraw Hill, New York, 1980, Fifth Edition (International Student Edition).

SEMESTER-IV**Outlines of Tests**

There will be four papers, three compulsory and one optional (out of the offered optional papers) of 100 marks each including practical examination as under :

Paper

Title

Paper -I : Regional Planning

Max. Marks	:	100
Terminal Exam.	:	80 Marks
Internal Assessment	:	20 Marks
Time	:	3 Hours

Objectives :

To understand and evaluate the concept of region in geography and its role and relevance in regional planning.

To identify the issues relating to the development of the region through the process of spatial organization of various attributes and their interrelationship.

To identify the causes of regional disparities in development, perspectives and policy imperatives.

Course Content :**UNIT-I**

- (i) The planning process : Concept and types; regional planning; concept, difficulties, rationale, principles and objectives.
- (ii) Role of geography in regional planning.

UNIT-II

- (iii) Preparation of a regional plan.
- (iv) Regions for planning : Regional awareness, region and its evolution; planning regions; characteristics, hierarchy, need, demarcation; planning regions of India.

UNIT-III

- (v) Surveys for planning : Concept and functions; types of surveys; regional surveys, diagnostic surveys, techno-economic surveys.
- (vi) Role of remote sensing, global positioning system (GPS) and geographic information system (GIS).

UNIT-IV

- (vii) The process of regional development : Indicators of development; levels of regional development and disparities; strategies for development.
- (viii) Case studies from selected countries : Regional planning in USA (TVA); regional planning in India (DVC & NCR); regional planning in Netherlands (Polders).

Objectives :

1. The paper is designed to acquaint the student with the importance of field work as one of the methodologies in Geography.
2. The students are to be sensitized about pre-field work preparations, conduct of the field work, post-field work based and the writing of a field work report.

Course Contents :

(Since this paper is of practical nature only, therefore contents of syllabus need not to be organized into units).

Field Based Project Report in Geography :

The project report will involve statement of objectives and scope of field investigation; methods of field

Paper-III : Quantitative Methods in Geography (Theory and Practical)

Max. Marks	:	100
Terminal Exam.	:	80 Marks
Internal Assessment	:	20 Marks
Time	:	3 Hours

Paper-IV : Any one of the Following Optional Courses :**Option (i) : Administrative Geography**

Max. Marks	:	100
Terminal Exam.	:	80 Marks
Internal Assessment	:	20 Marks
Time	:	3 Hours

Objective :

To enable the student to understand the role of Geography in area administration. It also helps them to appreciate the role of public policy and public finance in development of administrative areas.

Course Content :**UNIT-I**

Administrative Geography; Definition, subject matter and significance : Interface between Geography and Public Administration and Political Geography.

UNIT-II

Study of administrative areas in terms of (a) Evolution, (b) Nature, (c) Structural Attributes (hierarchy, size, shape and headquarters) and (d) Administrative area reform.

UNIT-III

Area Administration : (a) Public Policy : Formulation, Implementation and Impact, (b) Public Finance : Public goods and public economy.

UNIT-IV

Administrative System : (a) The world pattern, (b) Case studies : India and U.S.A.

- Note :*
1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 parts in about 25-30 words each. Each part shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least *two* from each unit. The candidates will attempt *four* questions selecting one from each unit. These will be in addition to the compulsory question at serial number 1 and each question will carry 15 marks.
 3. Internal assessment may include written assignments, snap tests, participation in discussion in the class, term papers, attendance etc.
 4. For reappear/improvement candidate(s), who have not been assessed earlier for internal assessment, the marks secured by them in theory paper will be increased proportionally to maximum marks of the paper in lieu of internal assessment. **The paper setter must put note (4) in the question paper.**

Course Content :**UNIT-I**

- (i) Water as a focus of geographical interest, inventory and distribution of world's water resources (surface and sub-surface).
- (ii) The basic hydrologic cycle; Precipitation, potential evapotranspiration and interception losses; run off.

UNIT-II

- (iii) Water demand and use in (a) Agriculture (b) Industry (c) Navigation (d) Power generation (e) Recreation and (f) Household.
- (iv) Conservation Practices and planning for the development of water resources.

UNIT-III

- (v) Problems of water resource management in India (i) water logging (ii) ground water (iii) water pollution (iv) flood (v) drought.
- (vi) International and Interstate River water disputes and treaties with reference to India.

UNIT-IV

BOOKS RECOMMENDED :

Essential Readings :

1. Agarwal, Anil and Sunita Narain, Dying Wisdom

UNIT-IV

- (vii) Spatial pattern of food security in India : Distribution of consumers - total population and agricultural population, food surplus and deficit regions.

UNIT-II

Locational analysis of economic activities : Basic concepts in location problems, location in a simplified economic landscape and heterogeneous land surface.

Demand, scale and agglomeration; location models; time dimensions in economic location.

UNIT-III

The Economy : Structure of economy in spatial context, sectors of economy–agriculture, manufacturing and service activities.

Structure of Indian Economy and its evolution.

Economy and the State in India : Important policy changes in the macro-economic and sectoral levels of economy; social, economic, environmental and spatial implications of changes in economic policy.

UNIT-IV

Bases of Economic activity : Infrastructure–Transport linkages including networks, freight rates, problems and policy.

Fuel and Power–Power sector development in its spatial context, policy planning for power sector development; infrastructure financing–emerging issues and changes.

Trade and Exchange - Basic concepts, trade as an alternative to movement of capital and labour, core-periphery concept in trade.

Commodities in world trade–trade blocs.

India's performance in trade–Recent policy changes and their implications.

Economic regions of India.

Emergence of new global economy : Global integration and its spatial outcome.

- Note :*
1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 parts in about 25-30 words each. Each part shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least *two* from each unit. The candidates will attempt **four** questions selecting one from each unit. These will be in addition to the compulsory question at serial number 1 and each question will carry 15 marks.
 3. Internal assessment may include written assignments, snap tests, participation in discussion in the class, term papers, attendance etc.
 4. For reappear/improvement candidate(s), who have not been assessed earlier for internal assessment, the marks secured by them in theory paper will be increased proportionally to maximum marks of the paper in lieu of internal assessment. **The paper setter must put note (4) in the question paper.**

BOOKS RECOMMENDED :**Essential Readings :**

1. Ambrose, P., Settlement Patterns, Longmans, London, 1970.
- 2.