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BE F CE

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.

DE F C
DE F

E A A E E F E A
AD A EC E o o r p r s

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
AB CD E F G H I J K L M N O P Q R S T U V W X Y Z
ABCDEF GHIJKL MNOPQR STUVWX YZ
ABCDEFGHIJKLMN OPQRST UVWXYZ

		Marks	Credits
Paper-I	: Geographic Thought	100	4
Paper-II	: Geomorphology	100	4
Paper-III	: Cartography (Theory and Practical)	100	4
Paper-IV	: <i>An optional paper</i>		
Option (i)	: Fundamentals of Population Geography	100	4
Option (ii)	: Fundamentals of Agricultural Geography	100	4
Option (iii)	: Political Geography	100	4
Option (iv)	: Geographical Perspectives on Sustainable Development	100	4
Option (v)	: Geography and Ecosystems	100	4
Option (vi)	: Contemporary issues in Human Geography	100	4
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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 :

		M	C
Paper-I	Geographic Thought	100	4
Paper-II	Geomorphology	100	4
Paper-III	Cartography (Theory and Practical)	100	4
Paper-IV	<i>An one o o n op on o ,</i>		
Option (i)	: Fundamentals of Population Geography	100	4
Option (ii)	: Fundamentals of Agricultural Geography	100	4
Option (iii)	: Political Geography	100	4
Option (iv)	: Geographical Perspectives on Sustainable Development	100	4
Option (v)	: Geography and Ecosystems	100	4
Option (vi)	: Contemporary issues in Human Geography	100	4
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- There will be continuous assessment of 20% of the Maximum Marks of each paper. The final award in each paper will be determined by the marks obtained by the candidate in the terminal examination and the continuous assessment.
- Options to be offered for teaching in a particular academic session in each class will be decided by the respective Board of Control.

p r o p r t o b r

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

Co rs Con n

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Tasks

Essays

1. Abler, Ronald F. Marcus, Melvin, G. Olson, Judy, M.: *Geographical Analysis*, Rutgers University Press, New Jersey, 1992.
2. Abler, Ronald:

2. Jensen, A.H.: *Geography and Development*, Sage Publications, Thousand Oaks, London, Thousand Oaks, New Delhi, 1999.
3. Johnston, R. J. & Claval, P.: *Geography and Development: An Introduction*, Sage Publications, Thousand Oaks, London, Thousand Oaks, New Delhi, 1999.

4. Chorley, R.J., Beckinsale, R.P. and Dunn, A.J.: *Geomorphology: An Introduction to Morphology and Geomorphology*, Volume One: Geomorphology Before Davis, Routledge, London, 1964.
5. Chorley, R.J., Beckinsale, R.P. and Dunn, A.J.: *Geomorphology: An Introduction to Morphology and Geomorphology*, Volume Two: The Life and Work of William Morris Davis, Methuen & Co. Ltd., London, 1973.
6. Chorley, R.J. and Beckinsale, R.P.: *Geomorphology: An Introduction to Morphology and Geomorphology*, Volume 3: Historical and Regional Geomorphology 1890–1950, Routledge, London, 1991.
7. Cooke, R. U. and A., Warren: *Geomorphology: An Introduction to Morphology and Geomorphology*, Batsford, London, 1973.
8. David, S.G. Thomas: *Geomorphology: An Introduction to Morphology and Geomorphology*, Wiley Blackwell, New York, 2011.
9. Davis, W. M.: *Geomorphology: An Introduction to Morphology and Geomorphology*, Dover, Boston, 1909.
10. Douglas, W.B., Robert, S.A.: *Geomorphology: An Introduction to Morphology and Geomorphology*, Wiley Blackwell, New York, 2011.
11. Embleton, C. and C. A. M., King: *Geomorphology: An Introduction to Morphology and Geomorphology*, Arnold, London, 1968.
12. Fairbridge, R.W.: *Geomorphology: An Introduction to Morphology and Geomorphology*, Reinhold, New York, 1969.
13. Goudie, A.S.: *Geomorphology: An Introduction to Morphology and Geomorphology*, Cambridge University Press, England, 2013.
14. Holmes, A.: *Geomorphology: An Introduction to Morphology and Geomorphology*, Nelson, London, 1968.
15. Hubbard, B. and Glasser, N.: *Geomorphology: An Introduction to Morphology and Geomorphology*, John Wiley & Sons Ltd., The Atrium, Southern Gate, Chichester, West Sussex PO19 8SQ, England, 2005.
16. King, L.C.: *Geomorphology: An Introduction to Morphology and Geomorphology*, Hafner, New York, 1962.
17. Melhorn, W. N. and R. C., Flemal: *Geomorphology: An Introduction to Morphology and Geomorphology*, State University of New York, Binghamton, 1976.
18. Migon, Piotr: *Geomorphology: An Introduction to Morphology and Geomorphology*, Oxford University Press Inc., New York, 2006.
19. Paul, A.L., Mike, G., David, J.M., David, W.R.: *Geomorphology: An Introduction to Morphology and Geomorphology*, Wiley Blackwell, New York, 2010.
20. Pavlopoulos, K., Evelpidou, N. and Vassilopoulos, A.: *Geomorphology: An Introduction to Morphology and Geomorphology*, Springer-Verlag Berlin Heidelberg, 2009.
21. Penck, W.: *Geomorphology: An Introduction to Morphology and Geomorphology*, St. Marisip Press, London, 1953.
22. Pitty, A. F.: *Geomorphology: An Introduction to Morphology and Geomorphology*, Methuen, London, 1971.

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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.

- (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.

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- (iv) Problems of Landform Mapping : Elementary conventional methods and profiles (serial, longitudinal, superimposed, composite and projected).
- (v) Calculation of Gradient, scales of slopes. Methods of slope analysis; Wentworth, Henry and Raisz, Robinson.
- (vi) Mapping of climatic data: Temperature and Rainfall.
- (vii) Representation of Population data.
- (viii) Representation of Agriculture data.

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There should be adequate interaction between the teacher and students. The teacher should make maximum use of wall maps and other illustrations like maps from geography books, Ph.D. thesis, research reports and atlases while teaching the use of different cartographic techniques. This course is concerned with visual techniques; therefore maximum use of the visual illustrations should be made while teaching this course.

Prerequisites: An *one* *o* *o* *n* *o* *p* *o* *n* *e* *o* .

Programme Objectives: *F* *n* *o* *p* *o* *p* *o* *n* *o* *r* *p* *r* *e* *s* *e* *n* *t* *s* .

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

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The aim of this course is to explain the geographical approach to the study of population. It focuses on broad analysis of spatial patterns of attributes of population; population resource relationship and population problems and policies of developed and less developed countries.

Course Content

- (i) Nature and scope of population geography; recent developments in population geography; population geography in India.
- (ii) Sources, quality and reliability of population data : Census; surveys (national sample survey, national family health survey etc.); registration (national population register, vital statistics registration) miscellaneous sources.
- (iii) Concepts, determinants and world patterns of following attributes of population:
 - (a) Distribution and Density.
 - (b) Vital rates : Birth and Death Rates.
 - (c) Growth.
 - (d) Migration (including laws of migration).
 - (e) Age and Sex Composition.
 - (f) Literacy.
 - (g) Residence.
 - (h) Occupation.

- (iv) Population and resources: Concepts of optimum population, over-population and under-population.
- (v) Population - Resource regions, theories of population (Malthus, Ricardo and Marx).



- (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.

- o 1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 questions in about 25-30 words each. Each question shall carry 2 marks (total 20 marks).
- 2. A total of eight questions will be set out of the whole syllabus, at least o from each unit. The candidates will attempt o 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 (total 60 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. p p r s r s p

6. Demko, G.J. and Others (Eds.): *op u on o , ap A u ,*, McGraw Hill Books Co., New York, 1971.
7. Ghosh, B.N- *n u n u o op u on o , ap* Sterling Publication, 2005.
8. Hassain, Mohammad Izhar: *op u on o , ap* Rawat Publication, 2005.
9. Hussain, M.: *an o , ap* Jaipur, Rawat Publication, 2006.
10. Hussain, M.(*- op u on o , ap* , Anmol Publication, 1994.
11. Jones, H.R.: *A op u on o , ap* , Harper and Row Publishers, London, 1981.
12. New Bold, K. Bruce : *op u on o , ap* Rawat Publications, 2012.
13. Quazi, S.A- *op u on o , ap* APH Publishing Corporation, 2012.
14. Trewartha, G.T.: *▼ D op u A o , ap o op u on*, John Wiley & Sons., Inc., New York, 1972.
15. Trewartha, G.T.:

12. Wood, Robert: *Physical Geography*, Longman Inc., New York, 1982.
13. Woods, R.: *Physical Geography*, Longman, London, 1979.
- 14.

(vi) Land capability classification (U.S. and Britain).



(vii)

5. Morgan, B.W. and Munton, J.C. : *An Introduction to Agricultural Geography* Methuen, London, 1971.
6. Shafi, M. : *Agricultural Geography and its Development*, Concept, New Delhi, 1984.
7. Singh, Jasbir : *Development of Agriculture in India*, Oxford, New Delhi, 1990.
8. Tarrant, J.R. : *Agricultural Geography* Davis and Charles, Newton Abbot, 1974.
9. Whealler, K.E., Ladley, A.M. and Leong, F.C. : *World Agriculture* Bland Educational, London, 1970.

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The course should fully acquaint the students with the understanding of agricultural geography as a developed branch of geography. The students should be made to learn the major concepts, factors affecting agricultural landuse, different types of agricultural landuse etc. by giving simple examples from their own and neighboring areas.

Programme Objectives

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


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- The course is designed to acquaint the student with the conceptual framework for the study of geographical bases for political phenomena.
- To create awareness about the role of geographical factors in influencing political character of individual countries/regions.

Course Content

- (i) Definition, approaches, scope and importance of Political Geography.
- (ii) Study of different geographical-political schools of thought.
- (iii) Recent developments in political geography.
- (iv) Elements of Political Geography :
 - (a) Physical elements (location, size and shape).

- (b) Human elements (Population - size, density & distribution, growth, composition, race, ethnographic and religious composition).
 - (c) Economic elements (Transportation - surface, air & water; foreign trade and investment).
- (v) Special themes in Political Geography :
- (a) State and Nation.
 - (b) Frontiers and Boundaries.
 - (c) Geo-strategic views: The contributions of H. Mackinder, A.T. Mahan, N.J. Spykman.
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- (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.
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1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 questions in about 25-30 words each. Each question shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least o from each unit. The candidates will attempt o, questions selecting one from each unit. These will be in addition to the compulsory question at serial numbe

5. Kasperson, R. E. et.al. (ed.) :  *o o a o ap*

- (i) Sustainable Development : Definition, concept and h

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.

References

Essential texts

1. Adams, W.M.: *The Development of the Environment and the Environment*, 2nd edition, Routledge, London, 2001.
2. Barbier, E.B.: *Conservation and Development*, Environmental Conservation, 14(2), 101-110, 1987.
3. Daly, H.E.: "The Economics of the Environment", Ecological Economics, 2(1), 1-6, 1999.
4. World Commission on Environment and Development: *Our Common Future*, Oxford University Press, Oxford, 1987.
5. Purvis, M. and Alan Grainger: *Environmental Development and the Environment*, Earthscan, London, 2004.

Further readings

1. Bhoovigyan Vikas Foundation: *Environment and the Environment*, Contributory Papers, New Delhi, 2001.
2. World Development Report: *Environment and Development*, Oxford University Press, Delhi, 2003.

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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 bridges between the theory and practice of Sustainable Development.

Programme Objectives

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

3. Goudie, A.S. and Thomas, D.S.G. : *Environmental Degradation and Development* Blackwell, 2000.
4. Kirkby, John; Phil O'Keefe and Lloyd Timberlake (eds.) : *Earth and Environment and Development* Earthscan Publications Ltd., London, 1995.
5. Mannion, A.M. : *Environmental Change* Routledge, London, 1999.
6. Reid, David : *Environmental Development* Earthscan Publications Ltd., London, 1995.
7. Shafi, Mohammad and Mehdi Raza : *Environmental Quality* Rawat Publications, Jaipur, 1992.
8. Soule, Michael E. and Gary Lease (eds.) : *Environmental Quality and Development* Island Press, Washington, D.C., 1995.
9. Tivy, Joy and Greg Overland,

4. Corbridge, S., Martin, R. and Thrift, N.: *Urban and Regional Planning*, Blackwell, Oxford, 1997.
5. Derek, G., Martin, R., and Smith, G.: *Urban and Regional Planning*, Macmillan Publishers, Cambridge, 1994.
6. Johnston, R.J.: *A Geographical Approach to Urban and Regional Planning*, Blackwell Publishers, Cambridge, 1991.

References

1. Harvey, D.: *Urban and Regional Development*, Blackwell Publishers, Cambridge, 1996.
2. Massey, D.: *People and Place*, Polity Press, Cambridge, 1998.
3. Massey, D., Allen, J. and Sarre, P.: *Urban and Regional Planning*, Blackwell Publishers, Cambridge, 1999.
4. Morley, D. and Robins, K.: *Planning and Urban Development in the City*, Routledge, London, 1995.
5. Redcliff, M. and Benton, T.: *Urban and Regional Planning*, Routledge, London and New York, 1994.
6. Rogers, A. and Vertovec, S.: *Urban Con*, Berg, Oxford, 1995.
7. Sack, R.D.: *Homo Geographicus: A Study of the Geographical Basis of Human Settlement*, The John Hopkins University Press, London, 1997.
8. Sibley, D.: *Urban and Regional Planning*, Routledge, London, 1995.
9. WerleJ /R26 9.96 Tf 7.56 0 Td Td (,)-3.01205(-)-256.024(B)-7.69778(1)0.89126(a)-1.704n,Spac3 l The4(S)-6.0241(p)6.024

E E E**, n s o s s**

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:

E E E (for the examination of April/May, 2017)

		100	4
Paper-I	Climatology	100	4
Paper-II	Geography of India (Systematic and Regional)	100	4
Paper-III	Fundamentals of Remote Sensing (Theory and Practical)	100	4
Paper-IV	<i>An one o o o n op on e o ,</i>		
Option (i) :	Cultural Geography	100	4
Option (ii) :	Population and Development Planning	100	4
Option (iii) :	Fundamentals of Natural Hazards and Disaster Management	100	4
Option (iv) :	Marketing Geography	100	4
Option (v) :	Geography of Water Resources	100	4
Option (vi) :	Administrative Geography	100	4
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- There will be continuous assessment of 20% of the Maximum Marks of each paper. The final award in each paper will be determined by the marks obtained by the candidate in the terminal examination and the continuous assessment.
- Options to be offered for teaching in a particular academic session in each class will be decided by the respective Board of Control.

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

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The overall objective of the course is to foster comprehensive understanding of atmospheric phenomena; dynamics and global climates.

Co rs Con n

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सूचिका

Essays

1. Barry, R.G. & Chorley, R.J.: *Open and Closed*, Methuen Co. Ltd., London, 5th Edition, 1987.
2. Bhutani, Smita:

References

Essential texts

1. American Society of Photogrammetry: *Handbook of Photogrammetry* (3rd ed.), Virginia, 1966.
2. American Society of Photogrammetry *Handbook of Remote Sensing*, Virginia, 1975.
- 3.

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Fundamentals of remote sensing 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.

Prerequisites: An *one* *o* *o* *n* *o* *p* *o* *n* *e* *o*.

Prerequisites: C, r, o r p r

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

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- To introduce Cultural Geography as a relevant and fertile sub-discipline within Geography.
- To introduce the conceptual and philosophical elements of cultural geography.
- To foster a comprehensive understanding of Culture as a concept in Geography.

Course Content

D C C A E A Y

- (i) Nature, Scope and Significance of Cultural Geography.
- (ii) The place of Cultural Geography within Geography.
- (iii) Development of Cultural Geography:

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(a)

C E C A E A Y

- (viii) Domination and Mainstream Cultures.
- (ix) Assimilation and Sub Cultures.
- (x) Resistance and Contested, Counter culture.

C A A FE A

- (xi) Nature and Culture:
 - (a) Environmental Determinism to Cultural Landscape.
 - (b) Nature as Other to Human Culture.
- (xii) Ethnicity and Culture:
 - (a) Pluralism and Marginalization.
 - (b) Racism and Segregation.
- (xiii) Capitalism and Culture:
 - (a) Hegemony.
 - (b) Cultures of Consumerism.

1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 questions in about 25-30 words each. Each question shall carry 2 marks (total 20 marks).
2. A total of eight questions will be set out of the whole syllabus, at least one from each unit. The candidates will attempt one question 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 (total 60 marks).
3. Internal assessment will include written assignments, snap tests, participation in discussions in the class, term papers, attendance etc.
4. For reappeal/improvement candidate(s), who have not been assessed earlier for internal assessment, the

4. Appadurai, A.: *Modernity and Cultural Politics*. University of Minnesota Press, Minneapolis, 1996.
5. Bertolas, R.J.(1998): Cross-cultural Environmental Perception of Wilderness. *Journal of Environmental Psychology*, 50(1), pp 98-111.
6. Cosgrove, D. & Jackson, P. (1987): New Directions in Cultural Geography, *Annals of the Association of American Geographers*, 77(2), pp 95-101.
7. Price, M. & Lewis, M. (1993): The Reinvention of Cultural Geography. *Annals of the Association of American Geographers*, 83 (1), pp 1-17.

References

1. Massey, D.: *Politics and Space*. Cambridge: Polity Press, 1994.
2. Mitchell, D.: *Cultural Politics: A Critical Introduction*. Malden: Blackwell, 2000.
3. Ralph, E.: *Urban and Rural Landscapes*. London: Pion, 1976.
4. Sauer, C.: *Land and Life*. Berkeley: University of California Press, 1925.
5. Sauer, C.: *Agriculture in Human History*. Cambridge, MA: MIT Press, 1969.
6. Shields, R.: *Homeless Subjects: An Inquiry into the Poetics of the Itinerant*. London: Routledge, 2002.

Co rs Con n s

- (i) Population and development planning.
- (ii) Population, Globalisation and Development.

- (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.

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

- (viii) Development problems of more developed countries (Economic, Physical, Environmental, Population, Social and Health).
- (ix) Population and development (case studies of Japan, Brazil and India).
 - o 1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 questions in about 25-30 words each. Each

Q u e s t i o n s

Ess a y Q u e s t i o n s

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- (x) Disaster Management: Pre-disaster phase, Emergency phase and Post-disaster phase.
 - (xi) Disaster Management Mechanism in India: Disaster Management Agencies.
 - (xii) Disaster Management Plans and Policies.
- o*
1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 questions in about 25-30 words each. Each question shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least *o* from each unit. The candidates will attempt *o* 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 (total 60 marks).
 3. Internal assessment may include written assignm

9. Hewitt, K.: *Introduction to Applied Geography*, Longman, London, 1997.
10. Kasperson, J.X., Kasperson, R.E. and Turner, B. L.: *Environmental Geography* University Press, Tokyo, 1995.

References

1. Schneider, S.K.: *Disaster Management*, M.E. Sharpe, New York, 1995.
2. Quarantelli, E.L. (ed): *Disaster Preparedness*, Routledge, London, 1998.
3. Kapur, Anu and Others: *Disaster Management*, Rawat, Jaipur, 2005.
4. Kapur, Anu: *Disaster Management*, Sage Publications India Pvt Ltd, New Delhi, 2010.
5. M.C. Gupta, L.C. Gupta, B.K. Tamini, Vinod K. Sharma: *Disaster Management*, National Disaster Management Centre, New Delhi, 2000.

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The students should be explained the interactive relationship between the natural and human processes. The platform from which we see this relationship remain

- (iii) Development of marketing systems.
- (iv) Classification of Markets : Rural, urban and intra-urban.
- (v)

5. Saxena, H.M.: *o, up o, up, an, C n,* S. Chand & Co., New Delhi, 1975.
6. Saxena, H.M.: *u n o, up* Rawat Publications, 1990.
7. Thompson, Grahame; Fra

3. Economic and Social Commission for Asia Pacific, United Nations: Guidelines for the preparation of National Master Water Plans, 1989.
4. Gulhati, N.D.: *Development of water resources in India*, Allied Publishers, Bombay, 1972.
5. Jones, J.A.: *Water resources in India*, Longman, 1997.
6. Ram Kumar Gurjar and B.C. Jat: *Water resources in Rajasthan*, Rawat Publications, Jaipur, 2008.
7. Matter, J.R.: *Development of water resources in India*, John Willey, Marylane, 1984.

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1. International Water Resource Association and Central Board of Irrigation and Power: Water for Human Needs, Vols. I to V Proceedings of the Second World Congress on Water Resources, 12-16 December, New Delhi, 1975.
2. Law, B.C. (ed.): Mountains and Rivers of India IGU National Committee for Geography, Calcutta, 1968.
3. Michael, A.M.: *Water resources in India*, Vikas Publishing House Pvt. Ltd., New Delhi, 1978.
4. Rao, K.L.: *Water resources in India*, Orient Longman, New Delhi, 1979.
5. Kates, R.W. and Burton, I. (ed.): *Water resources in India*, Ottawa, 1980.
6. Sidharth, K.: *Water resources in India*, Kisalaya Publications, New Delhi, 2000.
7. Smith, K.: *Water resources in India*, McMillan, London, 1972.
8. Tebbutt, T.H.Y. (ed.): *Water resources in India*, Elsevier Applied Science Pub., London, 1985.
9. Tideman, E.M.: *Water resources in India*, Omega, New Delhi, 1996.
10. Verghese, B.G.: *Water resources in India*, Oxford.

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The students should be made to understand the importance of efficient use of water and the practices to conserve it. Also, they must be encouraged to visit countryside to understand traditional water harvesting practices and their relevance to current scenario.

Programme Objectives

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

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It enables 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

- (i) Administrative Geography; Definition, subject matter and significance: Interface between Geography and Public Administration and Political Geography.
- (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.
- (iii) Area Administration: (a) Public Policy: Formulation, Implementation and Impact, (b) Public Finance: Public goods and public economy.
- (iv) Administrative System: (a) The world pattern, (b) Case studies: India and U.S.A.
 1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 questions in about 25-30 words each. Each question shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least one from each unit. The candidates will attempt one question 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 (total 60 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.

E E E

, n s o s s

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 :

E E E (for the examination of November/December 2016)

<i>ap</i>		<i>a</i>	<i>C</i>
Paper-I	(Paps Town and Country Planning	100	4

Co rs Con n

- (i) Human Settlement : A brief history with its relevance in modern context.

M.A. GEOGRAPHY (SEMESTER SYSTEM)

7 F EAD

Ess n , n s

1. Hagget, Peter and Others, Locational Analysis in Human Geography, Arnold, London, 1977.
2. Harvey, David, Explanation in Geography, Arnold, 1969.
3. Kothari, C.R., Research Methodology, Wiley Eastern Limited, New Delhi, 1988.
4. Misra, H.N. and Vijay P. Singh, Research Methodology in Geography, Rawat Publication, Jaipur, 1998.
5. Misra, R.P., Research Methodology, Concept Publishing Company, New Delhi, 1989.

F r r n s

1. Ralph, Berry, The Research Project, How to Write it, Routledge, London, 1990.
2. Montello, Danial R. and Paul C. Sutton, An Introduction to Scientific Research Methods in Geography, Sage Publications, London, 2006.
3. Thomas, S. Kuhn, The Structure of Scientific Revolution, University of Chicago Press, Chicago, 1970.

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Students are expected to identify a small research problem. They must prepare a research proposal. Using suitable research methodology, they should try to answer their research questions.

p r F n r s o n r

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

Distribution of marks :

- (i) Written paper of three hours duration along with theory papers

Co rs Con n

- (i) Introduction : Overview, History and Concepts of GIS, Scope and Application Areas, Purpose and Benefits of GIS, Components and Functional Elements of GIS.
- (ii) Map Concept – Map scales and representation.
- (iii) Map Projection – Coordinate system, datum, and projection systems.

- (iv) Data Input, Storage and Editing: Nature of geo

F E A D

Ess n . n s

1. Albrecht, J. : 'Key Concepts and Techniques in GIS', Sage Publications Ltd., London 2007.
2. Aronoff, S.: Geographic Information Systems : A Management Perspective, WDL Publications Ottawa, Canada, 1992.
3. Burrough, Peter A. and Rachael A. McDonnell.: Principles of Geographical Information Systems, Oxford University Press, Toronto, 1998.
4. Chang, Kang-tsung : Introduction to Geographic Information Systems, 4th ed., Tata McGraw-Hill Publishing Company Limited, New Delhi, 2008.
5. DeMeers, Michael N. : Fundamentals of Geographic Information Systems, 3rd. ed., John Wiley and Sons, Toronto, 2005.
6. ESRI : Understanding GIS, Environmental Systems Research Institute, U.S.A., 1993.

F r r n s

7. Fazal, S. : GIS Basics, New Age International Publishers, New Delhi, 2008.
8. Fazal, S. and Rahman, A.: Geographic Information System (GIS) Terminology, New Age International Publishers, New Delhi, 2007.
9. Heywood, Ian Cornelius, Sarah and Steve Carver. : An Introduction to Geographical Information Systems, 2nd ed., Pearson Education Limited, Toronto, 2006.
10. Jeffrey, S. & John, E. : Geographic Information Systems – An Introduction, Prentice Hall, New Jersey, USA, 1990.

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Basic fundamentals of GIS and GPS are introduced by demonstrating with the help of audio visual aids. For GPS exercises students will be taken for a field trip to the university grounds. Audio visual aids like power point presentations and demonstration of practical exercises will be guiding principles of teaching methodology. Students will be preparing their practical exercises by working in the GIS lab on GIS softwares.

Department of Geography, University of Delhi
 Faculty of Social Sciences, University of Delhi
 Department of Geography, University of Delhi

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

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- To familiarise the student with the theoretical foundations and conceptual grounding of this branch.
- To understand the regional development process in India.
- To sensitize the student about the changes taking p

2. A total of eight questions will be set out of the whole syllabus, at least *o* 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 (total 60 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. **no n q s on p p r**

F EAD

References

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 Development Planning in India, Concept Publishing, New Delhi, 1974.
9. Nangia, S. et al., Development Concerns in the 21st

- o 1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 questions in about 25-30 words each. Each question shall carry 2 marks (total 20 marks).
2. A total of eight questions will be set out of the whole syllabus, at least o 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 (total 60 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. **no n s on p p r**

F E A D

Ess n . n s

1. Hussain, M., Agricultural Geography, Inter India Publications, Delhi, 1979.
2. Hussain, M., Systematic Agricultural Geography, Inter India Publications, Delhi, 1996.
3. Ilbery, B. W., Agricultural Geography, Oxford University Press, Oxford, 1985.
4. Singh, J. and Dhillon, S.S., Agricultural Geography, Tata McGraw Hill, New Delhi, 1984.
5. Singh, Jasbir, Dynamics of Agricultural Change, Oxford, New Delhi, 1990.
6. Shafi Mohammad, Agricultural Geography, Dorling Kindersley (India) Delhi, 2006.

F r r n s

1. Conkling, E.C. and Yeats, M., Man's Economic Environment, McGraw, New York, 1976.
2. Deshpande, C.D., India: Regional Interpretations, ICSSR, New Delhi, 1991.
3. Mohamed Noor (ed.), Perspectives in Agricultural Geography, Vol. 1., Concept, 1981.
4. Morgan, B.W. and Munton, J.C., Agricultural Geography, Methuen, London, 1971.

o

The students should be acquainted with the development of agriculture over time and space in the world, and with the various models in agricultural geograp

15. Watts, David, Principles of Biogeography : An Introduction to the Functional Mechanisms of Ecosystems, McGraw-Hill, London, 1971.

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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.

p on o r p r t

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


s

- (ii) Concepts and themes in social geography :
 - (a) Social space.
 - (b) Social segregation.
 - (c) Social justice.
 - (d) Social well-being.
 - (e) Ethnicity.

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

- (iv) Attributes of spatial distribution of :
 - (a) Tribes.
 - (b) Religion.
 - (c) Language.
 - (d) Caste.

- (v) Social transformation and change in India :
 - (a) Modernization and sanskritization.
 - (b) Role of rural-urban interaction.
 - (c) Problems of social transformation.

- (vi) 
 - (a) Social and ethnic diversity of India and national integration.
 - (b) Cultural pluralism and development.

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 (total 60 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. **no question on paper**

7 READ

Essential books

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, 1957.

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References

1. Atreya, B.L. et.al. (ed.) : Indian Culture, Universal Publications, New Delhi, 1966.
2. Dubey, S.C. : Indian Society, National Book Trust, New Delhi, 1991.
3. Sen, Amartya, and Dreze Jean : Indian Development : Selected Regional Perspectives, Oxford University Press, Delhi, 1996.

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The students should be encouraged to participate in classroom discussions on the socio-spatial aspects of current issues of social, political and developmental importance.

Proposed Syllabus

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

Courses Content

ii.

- o* 1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 questions in about 25-30 words each. Each question shall carry 2 marks (total 20 marks).
2. A total of eight questions will be set out of the whole syllabus, at least *o* 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 (total 60 marks).
3. Internal assessment may include written assignme In i

5. Pannikar, K.N., Geographical Factors in India's

- vi. Medium Range Forecasts, Long Range Forecasts.
- vii. Satellites in Weather Forecasting.

- viii. Air Pollution : Sources and Types of Air Pollution.
- ix. Meteorological Factors affecting Air Pollution.
- x. Acid Precipitation.
- xi. Urban Heat Island.

- xii.

5. Barry, R.G.. & Chorley, R.J. : Atmosphere, Weather and Climate, Methuen Co. Ltd., London, 5th Edition, 1987.
6. Bhutani, Smita, Our Atmosphere, Kalyani Publishers, Ludhiana, 2000.
7. Darrel Hess: Mcknight's Physical Geography: A Landscape Appreciation, Prentice Hall of India Pvt. Ltd., New Delhi, 2012.
8. Frederick K. Lutgens & Edward J. Tarbuck : The Atmosphere: An Introduction to Meteorology, Prentice Hall of India Pvt. Ltd., New Delhi, 2012.
9. Lal, D.S.: Climatology, Thoroughly revised and Enlarged Edition, Sharda Pustak Bhaban, Allahabad, 2009.
10. Lydolph, P.E., The Climate of the Earth, Rowman Nad Allanheld, Totowa, New Jersey, 1985.
11. Oliver, John E.; Oliver, John and Hidore John J., Climatology : An Atmospheric Scien.33333 0 015.01205(S)1(y)6.02704

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E E E

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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	Topic	Marks	Credits
Paper-I	Regional Planning	100	4
Paper-II	Field Based Project Report (Practical Only)	100	4
Paper-III	Quantitative Methods in Geography (Theory and Practical)	100	4
Paper-IV	<i>An one of the following optional papers</i>		
Option (i)	: Urban Geography	100	4
Option (ii)	: Geography of Food Security	100	4
Option (iii)	: Economic Geography (with special reference to India)	100	4
Option (iv)	: Geography of Rural Settlements	100	4
Option (v)	: Qualitative Research Methods in Human Geography	100	4
Option (vi)	: Climate Change and Earth System	100	4
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1. There will be continuous assessment of 20% of th

Prerequisites

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 Contents

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

- o* 1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 questions in about 25-30 words each. Each question shall carry 2 marks (total 20 marks).
2. A total of eight questions will be set out of the whole syllabus, at least *o* 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 (total 60 marks).
3. Internal assessment may include written assignments, snap tests, participation in discussion in the class, term papers, attendance etc.

References

1. Bludon, John & Others (eds.) : Regional Analysis and Development, Harper & Row, London, 1973.
2. Burrough, A. : Principles of Geographic Informat

Course Contents:

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

Final Semester Project Report

The project report will involve statement of objectives and scope of field investigation; methods of field work for studies of different scales (macro, meso, and micro); preparation of a questionnaire; sampling techniques, collection, processing, representation, analysis and interpretation of data/information. The candidates are required to write a project report on small assigned problem involving field investigations.

- o 1. The candidates are required to submit their project reports one week before the commencement of examination to the concerned Head of the Postgraduate Department.
2. Assessment of practical record and viva voce on it will be done by a Board of Examiners, consisting of external examiner, internal examiner and the chairperson of the department.
3. Improvement/repeat cases must prepare either an improved form of their earlier practical record or prepare a new one. They must get it approved and signed by the faculty member teaching the course at their parent department.

Prerequisites

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

Objectives

- To provide knowledge of statistical techniques and their application in geography;
- To train the students to apply these techniques and methods to the analysis of the geographic problems.

Distribution of marks :

Written paper of three hours duration (along with the theory examination)	:	50
Practical Record and Viva Voce Examination (20+10)	:	30

Course Content

Quantification in Geography : Types of spatial data (point, line and area) and levels of their measurement (nominal, ordinal, interval and ratio), census, and sample surveys, sampling designs (with special reference to spatial data).

Measures of central tendency : Mean, median and mode; mean centre, median point, point of minimum aggregate travel distance, and population potential.

Measures of dispersion : Range, quartile deviation, mean deviation, standard deviation

- o* 1. A compulsory question containing 10 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 7 question in about 25-30 words each. Each question shall carry two marks (total 14 marks).

Practical Foundations of Urban Geography

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

- To familiarise the students with the theoretical foundations and recent trends in this branch of Geography.
- To provide an understanding of evolutionary, morphological and functional attributes of urban places at different scales.
- To sensitize the students about contemporary urban problems.

Course Content

- x. Definition, nature, scope and approaches.
- xi. Development and recent trends.
- xii. Contribution of Indian scholars.
- xiii. Attributes of Modern city.

- xiv. A study of the following aspects of urban places:
 - a. Settings, Location, Situation and site; definition, nature and significance.
 - b. Ecological processes and their spatial expression.
 - c. Internal structure: Theories of internal structure, internal structure of Indian cities and its comparison with western cities.
 - d. Urban fringe: Attributes, and demarcation.

- xv. City region relations: Basis and nature, definition, demarcation, functional structure of umland.
- xvi. Cities and central places: Models of Christaller, Losch, Perroux and Boudeville.

- xvii. Urban systems: Definition, models of city size distribution; urban system in india.
- xviii. Classification of urban places:
 - a. Non-functional classification
 - b. Functional Classification: Comparison of methods of functional classification.
- xix. Contemporary Urban Issues: Slums, pollution.

- o
1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 questions in about 25-30 words each. Each question shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least o 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 (total 60 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.

T S O n s

Ess n n s

1. Carter, Harold: The Study of Urban Geography, Edward Arnold, London, 4th Edition, 1995.
2. Dickinson, R.E.: City, Region and Regionalism, Routledge and Kegan Paul, London (Latest Edition).
3. Herbert, D.T.: Urban Geography: A Social Perspective, David and Charles, Newton & Abbot, 1977.
4. Johnson, J.H.: Urban Geography: An Introductory Analysis, Pergamon Press, London, 1972.
5. Mayer, H.M. & C.F. Kohn: Readings in Urban Geography, University Press, Chicago, 1959.
6. Pacione, Michael: Urban Geography: A global Perspective, Routledge, New York, 3rd Edition, 2007.

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The course should be backed up with extensive use of examples from Indian Urban Places with the help of audio-visual aids and, depending upon feasibility, field trips.

o n o r p r o F o o r

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

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- To make students understand various conceptual and methodological issues involved in food security system.
- To understand demand, supply and issues relating to availability and accessibility of food with special reference to developing countries and changes in the scenario in light of globalization process.

Co rs Con n s

- (i) Food Security : Concept, Approaches(household economy and livelihoods), and Methods of Measurement.
- (ii) Concepts of poverty, hunger and malnourishment.
- (iii) Food security through sustainable agricultural development.
- (iv) Climate change and food security.
- (v) World pattern of major food resources: grain farming, animal husbandry and fisheries.
- (vi) World pattern of food security.
- (vii) Spatial pattern of food security in India : trends and patterns of foodgrains production; patterns of poverty and hunger.
- (viii) Government policies towards food security in India : Public distribution system (PDS) and Targeted Public Distribution System(TPDS), and Food Security Act..

F r e e r n s

1. Aggarwal, P.K.(2008): “ Global Climate Change and Indian Agricultural: Impact, Adaptation and Mitigation”, Indian Journal of Agricultural Science, Vol. 78, No. 10, pp. 911-919.
2. Capaldo, J. et al.”: “A Model of Vulnerability to Food Insecurity”, ESA Working Paper NO. 10-03, Agricultural Development Economics Division (FAO), 2010.
3. Chatterjee B. and Kundo, S. (2011) : “ Food Security in Bangladesh – Patterns, Determinants, Interventions and Scope for Regional Cooperation”, Man and Development, Vol. 33, No.3, pp. 25-58.
4. Clay, E. (2002): Food Security: Concepts and Measurements”, Paper for FAO Export Consultation on Trade and Food Security, Rome, 11-12 July, 2002.
5. Mishra, R. P.: Population and Food Supply in Madhya Pradesh, Northern Book Centre Publication, New Delhi, 1989.
6. Mohammad, N. : “ Regional Patterns of Food Security in India”, Annals, NAGI, Vol. 21, Delhi, 2002.
7. Radhakrihna, R. (1991) : “ Food and Nutrition : Challenge for Policy”, Journal of the Indian Society of Agricultural Statistics, Vol. 53, No. 3.
8. Sen, A.K. : Poverty and Famines : An Essay in Entitlement and Deprivation, Oxford University Press, Delhi, 1981.
9. Shafi, M. and Aziz, A. (ed.) : Food Systems of the World, Rawat Publication, Jaipur, 1989.
10. Thompson, H. et al. (2010) : “ Climate Change and Food Security in Sub-Saharan Africa : A Systematic Literature Review”, Sustainability, Vol. 2, pp. 2719-2733.

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The students are required to understand the deep rooted dimensions of the whole concept of food

- To understand the spatial structure of Indian economy and recent changes therein and its social, political and environmental implications from geographical angle.

Co rs Con n

- i. Economic Geography : Definition and Scope, its place in Human Development and relationships with Economics and other branches of knowledge.
- ii. Concept base of the economy : Concept of resources, classification of resources.
- iii. Resources and Environment : Scarcity and sustainability, conservation of resources.

- iv. Locational analysis of economic activities : Basic concepts in location problems, location in a simplified economic landscape and heterogeneous land surface.
- v. Demand, scale and agglomeration; location models; time dimensions in economic location.

- vi. The Economy : Structure of economy in spatial context, sectors of economy–agriculture, manufacturing and service activities.
- vii. Structure of Indian Economy and its evolution.
- viii. 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.

- ix. Bases of Economic activity : Infrastructure–Transport linkages including networks, freight rates, problems and policy.
- x. Fuel and Power–Power sector development in its spatial context, policy planning for power sector development; infrastructure financing–emerging issues and changes.
- xi. Trade and ExchangegTndu

- o*
1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 questions in about 25-30 words each. Each question shall carry 2 marks (total 20 marks).
 2. A total of eight questions will be set out of the whole syllabus, at least *o* 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(total 60 marks).
 3. Internal assessment may include written assignme

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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 bridges between the theory and practice of Economic Geography.

p on o r p r o r . . s

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



- (vi) Rural settlement types and their distribution in selected regions of India : Kerala, Western Himalaya, Punjab Plains, Tribal Areas of Central India, Ganga Delta.
- (vii) Transformation of rural landscape in India.

References

1. Chisholm, M., Rural Settlement and Land Use, Hutchinson University Library, London, 1962.
2. Mitra, A., Report on House Types and Village Settlement Patterns in India, Manager of Publications, Delhi, 1960.
3. Rapoport, A., House Form and Culture, Prentice Hall, New Jersey, 1969.

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The course should be conducted with the help of adequate illustrations using audio-visual aids and depending upon feasibility, field visits.

Assessment

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

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This paper is to familiarise the students with basics of qualitative research and its significance. It aims to make them understand the ways qualitative data are collected, classified, tabulated and analysed. It also trains them to differentiate between casual and research based statements that help them in their life.

Course Content

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- i. Qualitative research : History, types and contribution to geography.
- ii. Relationship between quantitative and qualitative geography.
- iii. Contemporary qualitative geography.

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- iv. Objectivity and subjectivity in qualitative data collection.
- v. Qualitative research design : Asking research questions, selecting cases and participants.

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- vi. **Research Methods**
 - a.

- b. Focus; groups: Composition, size and number of groups, recruiting participants
- c. Case studies.

n 

- vii. Computer assisted qualitative data analysis (CAQDA)
 - viii. Reasons for using computers for qualitative research.
 - ix. Strengths and weaknesses of CAQDA systems.
- o* 1. A compulsory question containing 15 short answer type questions shall be set covering the whole syllabus. The student shall attempt any 10 questions in about 25-30 words each. Each question shall carry 2 marks (total 20 marks).

3. Erle C. Ellis, Kees Klein Goldewijk, Stefan Siebert, Deborah Lightman and Navin Ramankutty (2010). Anthropogenic transformation of the biomes, 1700 to 2000. *Global Ecology and*