

#### UNIVERSITY OF JAMMU

#### NOTIFICATION (10/July/ ADP/ 30)

It is hereby notified for the information of all concerned that the Vice-Chancellor, in anticipation to the approval of the Academic Council, has been pleased to authorize adoption of the revised Syllabi and Courses of Study in the subject of Geography for B.Sc. III of Three Year (General) Degree Course and M.Sc. Ist semester of Master's Degree Programme for the examination to be held in the years as under alongwith %age of change:-

	Revised Syllabi of B., be held in 2011, 2012	A/B.Sc Part-III & %age of Change in each Paper/course Nos. For the & 2013
<u>Class</u>	Part	Paper %age of Change
B.A./ B.Sc.	Ш	Paper-A100% changePaper-BNo changePracticals5% change
Adoption of the Dec. 2011, 2012		/M.Sc I semester & %age of Change for the examinations to be held in
Ciass	Semester	%age of Change

M.A./M.Sc. | 5%change

The alternative question papers are required to be set as per the University regulation given as under:-

i). If the change in the Syllabi and Courses of Study is less than 25%, no alternative Question paper will be set.

ii). If the change is 25% and above but below 50% alternative Question Paper be set for one year.

iii). If the change is 50% and above on whole scheme is changed, alternative Question Paper are set for two years.

> Sd/-(DR. P.S. PATHANIA) REGISTRAR

F.Acd./XXVI/10/4741-75 Dated: 23-07-2010 **B.A./B.Sc. Part-III** 

## Papers A, B & C

## Syllabi and Courses of Study in Geography

For Examinations to be held in the Years

2011, 2012 and 2013

## Syllabus for B.A./B.Sc. Part-III Geography Paper-A Human and Resource Geography

# Syllabi and Courses of Study in Geography for B.A./B.Sc. Part-III for the examinations to be held in the year 2011, 2012 and 2013.

#### 40 Marks

#### Section-A (Human Geography)

## No. of Lectures

#### Unit-I

1.	Nature and Scope of Human Geography	(1)
2.	Determinism and Possibilism	(1)
3.	Approaches to the study of Human Geography	(1)
	Quantitative and Behavioural	
4.	Spatial Distribution, Physical and Social Profile of	(2)
	Eskimos, Bushmen and Gujjars.	

#### Unit-II

1.	Distribution, Density and Growth of World Populatio	n (2)
2.	Concept of Over Population, Under Population, Optin	num (2)
	Population and Zero Population Growth.	
3.	Demographic Transition Theory	(2)
4.	Migrations – Causes, Types and Consequences	(2)

#### Section – B (Resource Geography)

#### Unit-III

Meaning, Nature and Component of Resources	(1)
Classification of Resources: Renewable and	(2)
Non-Renewable and Their Conservation	
Distribution and Types of World Forest	(1)
Major Soil Types of the World, Soil Erosion and	(1)
	Classification of Resources: Renewable and Non-Renewable and Their Conservation Distribution and Types of World Forest

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#### Unit-IV

- Factors affecting the Agriculture, Types of Agriculture, (2)1. Distribution, Production and Conditions of Growth of Wheat, Cotton, Tea and Sugarcane.
- Distribution, Production and Types of Coal, Iron Ore, (2)2. Manganese, Petroleum and Water Resources.
- Factors affecting the Localization of Industries 3. (1)
- World distribution of Iron-Steel, Cotton Textile & (2)4. Automobile Industries

#### **Instructions for the Paper Setter:**

The question paper shall comprise of two sections. Section A, and B. Section A shall be compulsory covering all the units of the syllabus and shall consists of 8 questions. Each question carries 2 marks, each answer should be limited to 50 words only. Section B shall comprise of 8 questions, spreading over 4 units of the syllabus having internal choice and the students shall have to attempt 4 questions in all. Each question shall be of 6 marks and answer should be limited to 300 words.

- Chandna, R.C., "Geography of Population", Kalyani Publishers, 2001, New 1. Delhi.
- Hussain, M., "Human Geography" Rawat Publications, 1999, New Delhi. 2.
- Leong, G.C. & Morgan, C.G., "Human and Economic Geography", Oxford 3. University Press, 2001.
- Singh, L.R., "Fundamentals of Human Geography", Sharda Pustak Bhawan 4. 2003, Allahabad.

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## <u>Syllabus for B.A./B.Sc. Part-III Geography</u> <u>Paper-B Geography of Asia</u>

# Syllabi and Courses of Study in Geography for B.A./B.Sc. Part-III for the examinations to be held in the year 2011, 2012 and 2013.

#### **Objectives:**

The objective of this course is to give an overview of the land, people and economy of the different regions of Asia, so that the students are aware of their neighbouring countries. In this process students would be abreast of the diverse geographical processes, in the ambit of which economic development of various countries of the world have evolved.

#### 40 Marks

#### **Course Content**

### No. of Lectures

#### Unit-I:

1.	Asia in the context of World	(1)
2.	Asia – Physiographic divisions	(2)
3.	Asia – Factors affecting Climate, Temperature,	(2)
	Pressure and Rainfall conditions.	
4.	Asia – Major River Systems	(1)

#### Unit-2:

1.	Asia – Types, Characteristics and Distribution of Forests	(1)
2.	Asia – Major soil types	(1)
3.	Asia - Agriculture (Conditions of Growth, Production	(2)
	and Distribution of Rice, Wheat, Jute and Tea)	
4.	Asia – Distribution and Density of Population.	(2)

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#### Unit-3:

1.	Japan – Land and People covering Physiography, Climate, Distribution and Density of Population and	(2)
	Process of Urbanization.	(2)
2.	Japan – Main features of Agriculture, Localization of	(2)
	Industries and Industrial regions.	
3.	Pakistan – Land and People covering Physiography, Climate,	(2)
	Distribution and Density of Population and Process of Urbaniz	ation
4.	Pakistan - Main features of Agriculture, Localization of	(2)
	Industries and Industrial regions.	
Unit	<b>-4:</b>	
1.	Contemporary Issues in World Geography:	(2)
	a) Quantitative Revolution b) GIS	
	c) Remote Sensing d) Digital Cartography	
2.	GATT and Globalization	(1)
3.	World Summits on Environment	(1)
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## 4. Global Warming – Causes and Consequences

#### **Instructions for the Paper Setter:**

The question paper shall comprise of two sections. Section A, and B. Section A shall be compulsory covering all the units of the syllabus and shall consists of 8 questions. Each question carries 2 marks, each answer should be limited to 50 words only. Section B shall comprise of 8 questions, spreading over 4 units of the syllabus having internal choice and the students shall have to attempt 4 questions in all. Each question shall be of 6 marks and answer should be limited to 300 words.

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- 1. Cole, J: A Geography of the World's Major Regions, Routledge, London, 1996.
- 2. Dickenson, J.P: The Geography of the Third World, Routledge, London, 1996.
- 3. Stamp, L.Dudley: Asia: A Regional and Economic Geography, Methuen & Co., London, 1959.
- 4. Tirtha, Ranjit: Geography of Asia, Rawat Publications Jaipur & New Delhi, 2001.
- 5. Tikkha, R.N: Geography of Asia, New Academic Publishing Co. Educational Publishers, Mai Hiran Gate, Jalandhar, Latest Edition.

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## <u>SYLLABUS FOR B.A./B.SC. PART – III</u> <u>PRACTICALS</u>

#### **Course Contents:**

Marks: 25

#### Unit-I

Map Projections:

- (i) General Principals
- (ii) Classification
- (iii) Choice of Map Projections

#### Unit-II

Construction, Properties, merits and demerits of the following map Projections:

- (i) Cylindrical Map Projections
  - (a) Simple Cylindrical Map Projection
  - (b) Cylindrical Equal Area Map Projection
- (ii) (a) Conical Map Projection with one standard Parallel
  - (c) Conical Map Projection with two standard Parallels
- (iii) Zenithal Map Projections (Polar cases)
  - (a) Zenithal Equal Area
  - (b) Zenithal Equidistant
- (iv) Conventional Map Projections
  - (a) Sinusoidal Map Projection
  - (b) Mercator's Map Projection

#### Unit-III

- (A) Statistics: Correlation Analysis
  - (i) Person's Product Moment
  - (ii) Spearman's Rank Correlation Coefficient
- (B) Basic concept of:
  - (i) GIS & Remote Sensing
  - (ii) Computer Cartography

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#### Unit-IV

- (A) Surveying
  - (i) Plane Table Survey (Intersection and Radial Methods)
  - (ii) Socio-Economic Survey based upon primary data and writing of reports.

#### Note:

Plane Table Survey shall remain part of syllabus of B.A./B.Sc. Part-III upto annual examination 2008. From annual examination 2009 prismatic compass survey shall be introduced in Part-III and Plane Table Survey in Part-II

Instructions to the Paper Setters:

The Practical examination in Geography will be conducted in two sessions (three hours duration each). In the first session the question paper will be set among the three units of the syllabus where in 6 questions should be set i.e. 2 questions from each unit and the student will have to attempt one question from each unit. On the second session the question will be asked from Unit-IV (Surveying). Viva-Voce will be asked in the second session for through evaluation of the students.

#### **Distribution of Marks:**

08 Marks for surveying

12 Marks for other three units ( 4 marks for each unit)

05 Marks for practical note-book, report and viva-voce.

- 1. Singh, R.L. and Dutt, P.K. elements of Practical Geography, Kalyani Publishers, New Delhi.
- 2. Alvi Zamir: Statistical Geography Rawat Publications, Jaipur and New Delhi.
- 3. Alvi, Zamir, A test book of Surveying. Raluat Publications New Delhi.
- 4. Mahmood, Aslam (2002), Statistical Methods in Geographical Studies. Rajesh Publications New Delhi-110002.
- 5. Ishtiaque M., A test book of Practical Geography. Heritage Publishers, 4-C, Ansari Raod, Daryagang, New Delhi.

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- Monkhouse, F.J. (1999) Maps and diagrams B.I. publications, 54 Janpath, New 6. Delhi 110002.
- Misra R.P and Romesh, A Fundamental of Cartography. 7.
- Clarke, C.K. (2004) Geographic information systems and Environmental 8. Modeling, Prentice Hall of India, Pvt. Ltd. New Delhi-110001.
- Kraak, M.J. and Qrmeling, F.(2004) Cartography, Visualization of Geospatial 9. data. Pearson Edu. Ltd. U.K.
- Taylor, D.R.F.(1990) Geographic Information System. The Micro Computer 10. and Modern Cartography. Pergamon Oxford University Press, New New York/New Delhi.
- Tomlin, C.D.(1990) Geographic information system and cartographic 11. Modelling Englewood cliffs, prentice Hall, New Delhi.
- Khullar, D.R.(2003) Essentials of Practical Geography, New Academic 12. Publishing Co. Mai Hiran Gate, Jalandhar-144008.
- Singh, Roop, Map work and Statistics. 13.

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## M.A./M.Sc. 1<sup>st</sup> Semester

Course No. 400, 401, 402, 403, 404 & 405

Syllabi and Courses of Study in Geography

For Examinations to be held in the Years

December 2011, 2012 and 2013

# <u>University of Jammu</u> <u>M.A./M.Sc. Geography, 1<sup>st</sup> Semester</u>

Course No: 400	<b>Title: Geomorphology</b>	
Credit: 4	Max. Marks: 100	
Duration of Examination: 3 hrs.	a) Semester Examination: 80	
	b) Sessional Assessment : 20	

## Detailed Syllabus for examination to be held in Dec. 2011,2012,2013.

UNI	1 1	ontract
	$\mathbf{H}_{\mathbf{G}}$	ours
1.1	Definition, Nature and Scope of Geomorphology	(3)
1.2	Fundamental concepts in Geomorphology.	(3)
1.3	Geosynclines & Mountain Building	(3)
1.4	Geomorphic ideas of Davis, Penk and King	(3)
UNI	Т-П	
2.1	Interior of the earth – Structure and Composition	(3)
2.2	Earth movements – types, causes and effects	(3)
2.3	Theories of Continental Drift, Plate Tectonics and Isostacy	(3)
2.4	Seismicity and Volcanism: Causes, Prone Areas, Distribution and types	of
	Volcanoes, Effects of Earth Quakes and Volcanoes	(3)
UN	IT-III	
3.1	Weathering and Mass movement – types and Associated Factors	(3
3.2	Types of stream and drainage pattern	(3
3.3 3.4	Development of landscapes – fluvial, glacial, Aeolian and Karst topogra Techniques of identification, correlation and measurement of	phy (3
5.1	geomorphological processes	(3
	geomorphologieur processes	1
UN	IT-IV	
4.1	Soil formation and types	(3
4.2	Slopes – evolution and replacement models	(3
4.3	Geomorphic hazards – Landslides, Floods and Tsumani	(3
4.4	Applied Geomorphology – Geomorphology and its application in agricu	lture,
	hazard management, Urbanization and mineral exploration	(3

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#### **Note for Paper Setters:**

The question paper shall contains two questions from each unit. Candidates shall be required to attempt four questions in all, selecting one question from each unit. A question carry equal marks.

- Chorley, R.J., Spatial Analysis in Geomorphology, Methuen, London, 1972. 1.
- Cooke, R.U. and Doornkamp J.C., Geomorphology in Environmental 2. Management - An introduction, Clarendon Press, Oxford, 1974.
- Dury, G.H., The Face of Earth, Penguin Harmondsworth, 1959. 3.
- Fairbridge, R.W., Encyclopedia of Geomorphology, Reinholdts, New York, 4. 1968.
- Goudie, A., The Nature of the Environment, Oxford and Blackwell, London, 5. 1993.
- Gerner H.F., the Origin of Landscape A synthesis of Geomorphology, 6. Oxford University Press, London, 1974.
- 7. Mitchell, C.W., Terrain Evaluation, Longman, London, 1973.
- Ollier, C.D., Weathering, Longman, London, 1979. 8
- Pitty A.F., Introduction to Geomorphology, Methuen, London, 1971. 9.
- Stoddart, D.R., (ed): Process and Form in Geomorphology, Routledge, New 10. York, 1996.
- Skinner, B.J. & Porter, S.C., The Dynamic Earth, John Wiley, New York, 11. 1995.
- Sparks, B.W., Geomorphology, Longman, London, 1960. 12.
- Sharma H.S., (ed): Perspectives in Geomorphology, Concept, New Delhi, 13. 1980.
- Singh S., Geomorphology, Prayag Publication, Allahabad, 1998. 14.
- Thornbury, W.E., Principles of Geomorphology, John Wiley, New York, 15. 1960.

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### **University of Jammu** M.A./M.Sc. Geography, 1<sup>st</sup> Semester

Course No: 401	<b>Title: Bio-Geography</b>	
Credit: 4	Max. Marks: 100	
<b>Duration of Examination: 3 hrs.</b>	a) Semester Examination: 80	
	b) Sessional Assessment : 20	

## Detailed Syllabus for examination to be held in Dec. 2011,2012,2013.

		Contract
		Hours
1.1	Nature, Scope, Significance and Development of Bio-Geography	(3)
1.2	Biosphere – World of living things including plant and animal life	(3)
1.3	Bio-geographical cycles – Carbon, Oxygen and Hydrological cycle	(3)
1.4	Concept of Ecosystem (Mountain and aquatic Ecosystem)	(3)
UNI	Т-П	
2.1 2.2	Factors influencing the growth and distribution of plants in the world Phytogeography of the world – Tropical Rainforests, Broad leaved	(3)
	Forests, Temperate Deciduous forests.	(3)
2.3	Plant Succession: Meaning and concept of primary and secondary	
	Succession with examples	(3)
2.4	Plants and their classification, Taxonomic classification, Ecological	
	Classification. Raunkiear's and Grime's classification.	(3)
UNI	T-III	
3.1	Zoogeographical realms of the world	(3)
3.2	Synecology: Quantitative and Qualitative characteristics of communit	
3.3	Autecology: Ecological Life – Cycle	(3)
3.4	Remote Sensing in Biogeography	(3)
5.1	Remote Sensing in Diegeography	(5)
UN	T-IV	
4.1	National Parks, Wild Life Sanctuaries and Bioreserves in India	(3)
4.2	National Forest Policy of India	(3)
4.3	Human Impact on Natural Ecosystem	(3)
4.4	Conservation measures of Biosphere Reserve	(3

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#### Note for Paper Setters:

The question paper shall contain two questions from each unit. Candidates shall be required to attempt four questions in all, selecting one question from each unit. A question carry equal marks.

- 1. Agarwal. D.P. Man and Environment in India Through Ages, Brooks and Brooks, 1992.
- 2. Ambasht. R.S. Plant Ecology, Students, Friends and Co., Lanka: Varanasi 5, 1987.
- 3. Bradshaq M.J., Earch and Living Planet, ELBS, London, 1979.
- 4. Cox C.D. and Moore P.D., Biogeography: An Ecology and Evolutionary approach, 5<sup>th</sup> Edn. Blackwell, 1993.
- 5. Gaur R., Environment and Ecology of Early Man in Northern India, R.B. Publication Corporation, 1987.
- 6. Hoyt J.B., Man and Earth Prentice Hall, U.S.A., 1992.
- 7. Hagget R.J., Fundamentals of Biogeography, Routledge, U.S.A., 1998.
- 8. Illies, J., Introduction to Zoogeography, Mcmillan, London, 1974.
- 9. Khoshoo, T.N. and Sharma, M.(eds) Indian Geosphere-biosphere, Har-Anand Publication, Delhi 1991.
- 10.Lapedes, D.N., (ed) Encyclopedia of Environmental Science, McGraw Hill, 1974.
- 11.Mathur H.S., Essentials of Biogeography, Anuj Printers, Jaipur, 1998.
- 12. Pears, II, Basic Biogeography, 2<sup>nd</sup> edn, Longman, London, 1974.
- 13.Simmon I.G., Biogeography, Natural and Cultural, Longman, London, 1974.
- 14. Tivy.J., Biogeography: A study of Plants in Ecosphere, 3<sup>rd</sup> Edn, Oliver and Boyd, U.S.A., 1992.

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## <u>University of Jammu</u> <u>M.A./M.Sc. Geography, 1<sup>st</sup> Semester</u>

Course No: 402	<b>Title: India: A Regional Geography</b>	
Credit: 4	Max. Marks: 100	
<b>Duration of Examination: 3 hrs.</b>	a) Semester Examination: 80	
	b) Sessional Assessment : 20	

## Detailed Syllabus for examination to be held in Dec. 2011,2012,2013.

UNIT-I		Contract Hours
1.1	Basis of Regionalization of India	(3)
1.2	Himalayan and peninsular drainage systems of India	(3)
1.3	Origin and Mechanism of Indian Monsoon	(3)
1.4	Soil, Vegetation, Forest types, their distribution and conservation	(3)
UNI	T-II	
2.1	Resource regions of India - Production, Reserves and distribution of	
	Coal, Petroleum and Hydro – Electricity	(3)
2.2	Production and distribution of Iron ore, Manganese, Bauxite, Mica	
	and Copper	(3)
2.3	multipurpose Projects: The Damodar Valley, Bhakra Nangal, Kosi,	
	Tungbhadra and Hirakud	(3)
2.4	Distribution growth and density of Population with special reference	
	to Post – Independence Period	(3)
UNI	T-III	
3.1	Main characteristics, features and problems of Indian agriculture	
	Irrigation and its development	(3)
3.2	Green revolution and its spatial dimensions	(3)
3.3	Industrial Development in India during plan periods	(3)
3.4	Location pattern of Iron and Steelm Cotton and Jute textiles and sugar	
	Industries, Industrial regions of India.	(3)

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#### **UNIT-IV**

4.1	Regionalization of Sutluj – Gangetic Plain	(3)
4.2	Regional Geography of J&K, Punjab and Himachal Pradesh	(3)
4.3	Comparative analysis of eastern and western coastal regions of India	(3)
4.4	Study of India's Islands – Andamans	(3)

#### Note for Paper Setters:

The question paper shall contain two questions from each unit. Candidates shall be required to attempt four questions in all, selecting one question from each unit. A question carry equal marks.

- 1. Center for Science & Environment (1988) State of India's Environment, New Delhi.
- 2. Deshpande C.D., India's Regional Interpretation, ICSSR & Northern Book Center, 1992.
- 3. Dreze Jean & Amartya Sen (ed) India Economic Development and Social opportunity, Oxford University Press, New Delhi, 1996.
- 4. Kundu, A.Raza moonis, Indian Economy The regional Dimension, Spectrum Publishers, New Delhi, 1982.
- 5. Robinson, Fransis, The Cambridge Encyclopedia of India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan & Maldives, Cambridge University Press, London, 1989.
- 6. Singh, R.L., (ed) India A Regional Geography, National Geographical Society, India, Varanasi, 1971.
- 7. Spate OHK & ATA Learmonth India & Pakistan, Methuen, London, 1967.
- 8. Tirtha R & Gopal Krishna, Emerging India, Reprinted by Rawat Publications, Jaipur, 1996.

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## <u>University of Jammu</u> <u>M.A./M.Sc. Geography, 1<sup>st</sup> Semester</u>

Course No: 403

Credit: 4 Duration of Examination: 3 hrs. Title: Fundamentals of Population Geography Max. Marks: 100 a) Semester Examination: 80 b) Sessional Assessment : 20

#### Detailed Syllabus for examination to be held in Dec. 2011,2012,2013.

UNI		Contract Hours
1.1	Definition, Nature, Scope and Significance of Population Geography	(3)
1.2	Sources of Population data	(3)
1.3	Factors affecting Population distribution, Density and Growth	(3)
1.4	Components of Population change – Mortality and Fertility	(3)
UNI	T-II	
2.1	Concepts of Overpopulation, under population and Optimum Population	on (3)
2.2	India and World: Urbanization and Literacy Patterns	(3)
2.3	India and World: Age and Sex composition of Population	(3)
2.4	India and World: Occupational Structure	(3)
UNI	T-III	
3.1	The Demographic Transition Theory	(3)
3.2	Migrations – Types, Causes and Consequences	(3)
3.3	Population Problems of under Developed and Advanced Countries	(3)
3.4	Population Resource Regions of the World	(3)
UNI	T-IV	
4.1	Theories of population – Malthus, Marx	(3)
4.2	Definition, Types and Objectives of the Population Policies	(3)
4.3	Population Policy of India	(3
4.4	Population Policy of China	(3
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#### Note for Paper Setters:

The question paper shall contain two questions from each unit. Candidates shall be required to attempt four questions in all, selecting one question from each unit. A question carry equal marks.

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

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#### <u>University of Jammu</u> <u>M.A./M.Sc. Geography</u>, 1<sup>st</sup> Semester

**Course No: 404** 

Credit: 4 Duration of Examination: 3 hrs. Title: Quantitative Techniques in Geography Max. Marks: 100 a) Semester Examination: 50 b) Sessional Assessment : 50

Detailed Syllabus for examination to be held in Dec. 2011,2012,2013.

UNIT-I	Contract Hours	
Significance of Statistical techniques in Geographic studies, Sources and		
Collection of Data, Tabulation of Data, Graphic representation: Histogram, Frequency Curve and Frequency Polygon.	(12)	
Trequency Curve and Trequency Torygon.	(12)	
UNIT-II		
Measures of Central Tendency: Mean, Median, Mode. Measures of Variation and Dispersions: Crude Range, Quartile Deviation, Median and the Quartile,		
Standard Deviation.	(12)	
UNIT-III		
Correlation Analysis : Karl Pearson's Product Moment and Spearman's Rar	an's Rank	
Correlation. Scatter diagram: Test of Significance on Correlation Coefficier Simple Linear Regression and Ordinary Least Square Method of fitting	nt.	
Regression Line: Coefficient of Determination.	(12)	

#### **UNIT-IV**

Theory of Sampling: Types of Sampling: Sample units and design, Standard Error and Sample size, Testing and adequacy of Sample. Hypothesis testing: needs and types of hypothesis, goodness of fit and significance and confidence level. Chi-Square Test. (12)

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#### **Note for Paper Setters:**

The question paper shall contain two questions from each unit. Candidates shall be required to attempt four questions in all, selecting one question from each unit. All questions carry equal marks.

#### **Suggested Readings:**

- 1. David Unwin, Introductory Spatial Analysis, Methuen, London, 1981.
- 2. Gregory S., Statistical Methods and the Geographer, Longman, London, 1978.
- 3. Hammond R, and P.S.MeCullagh, Quantitative Techniques in Geography: An Introduction, Clarendan Press, Oxford, 1974.
- 4. John, Pcole and Cuchlaine A.M.King, Quantitative Geography, John Wiley, London, 1968.
- 5. Johnston R.J., multivibrate Statistical Analysis in Geography, Longman London, 1973.
- 6. Koutsoyiannis, theory of Economics, Mcmillan, London, 1973.
- 7. Maurice Yeats, An Introduction to Quantitative Analysis in Human Geography, McGraw Hill, New York, 1974.
- 8. Peter Hagget, Andrew D. Cliff & Allan Frey, Location Methods Vol.1 and II, Edward Arnold, London, 1977.

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#### **University of Jammu** M.A./M.Sc. Geography, 1<sup>st</sup> Semester

Course No: 405	<b>Title: Cartography</b>		
Credit: 4	Max. Marks: 100		
<b>Duration of Examination: 3 hrs.</b>	a) Semester Examination: 50		
	b) Sessional Assessment : 50		

Detailed Syllabus for examination to be held in Dec. 2011, 2012, 2013.

UNIT-I	Contract Hours
Introduction – Trends in the development of cartographic techniques for descriptive, analytical and perspective aspects in the use of maps, maps and their significance.	(12)
<ul> <li>UNIT-II</li> <li>Thematic Cartography – Physical</li> <li>1. Assessment of land quality by using different attributes in the evolution of landforms and measuring their association and special differentiation.</li> </ul>	
<ol> <li>Land based resources and cover and land use.</li> </ol>	(12)
<b>UNIT-III</b> Thematic cartography – Socio-economic: Data sources and techniques of analysis of socio-economic data through the preparation of single purpose and composite maps.	
<b>UNIT-IV</b> Creation of spatial data base and application using GIS, remote sensing and computer cartography, preparation of spatial models in cartography and planning. <u>Note for Paper Setters:</u>	(12)

The question paper shall contain two questions from each unit. Candidates shall be required to attempt four questions in all, selecting one question from each unit. All questions carry equal marks. Mans by Allinde

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