

**Annexure – 4**

**Periyar university**

**Salem-636011.**

**Periyar Institute of Distance Education (PRIDE)**

**M.A., DEGREE**

**BRANCH - GEOGRAPHY  
(Non-Semester Pattern)**

**REGULATIONS AND SYLLABUS**

**FOR**

**Students admitted during**

**2014-2015 onwards**

**Periyar Institute of Distance Education (PRIDE)**

**M.A. DEGREE**

**BRANCH -GEOGRAPHY**

**REGULATIONS**

**1. Objectives of the course :**

The main objective of geography is to acquaint the pupils with the living conditions of men in different parts of the globe. Geography is related to other social sciences and studies them better with a background of geography. Knowledge of geography is essential for business, trade, commerce, agriculture, industry, navigation and administration etc. Geography plays an important role to develop scientific attitude and to develop the ability to draw valid conclusions and independent thinking. The subject is also plays a major role in the context of global resources, space technology and information technology. This syllabus is aimed at preparing the students to cope with the latest developments and compete with students from other universities and put them on the right track.

**2. Condition for Admission :**

Candidates who have passed the **B.A./B.Sc** Degree Examination of this University with **Geography** as the main subject of study (or) Graduate in any faculty [viz] Arts, Science, Commerce, Languages, Law, Engineering [or] (Regular Stream (10+2+3) Pattern) an examination of any other University accepted as equivalent thereto by this University are eligible for admission.

### **3. Duration of the course :**

The course of the study shall be based on Non-Semester pattern and consist of total period of two years and shall comprise of the following subjects according to the syllabus and books prescribed from time to time.

### **4. Course of study :**

The course of study shall comprise instruction in the following subjects according to the syllabus and books prescribed from time to time.

### **5. Examinations :**

There shall be two examinations- one in the first year and one in the second year. Candidates failing in any subject/subjects will be permitted to appear for such failed subject/subjects at subsequent examinations.

Examinations will be held in April/May.

### **6. Scheme of Examination :**

<b>First year</b>	<b>Title of the paper</b>	<b>Suggested Paper Code</b>	<b>Hours</b>	<b>Marks</b>
Major Paper I	Physical Geography		3	100
Major Paper II	Population and Settlement Geography		3	100
Major Paper III	Fundamentals of Cartography	Common paper for M.Sc. Paper - 10	3	100
Major Paper IV	Geography of Resources		3	100
Major Paper V	Regional Geography of India	Common paper for	3	100

		M.Sc. Paper - 3		
Major Paper VI	Geography of Travel and Tourism		3	100

Second year	Title of the paper	Suggested Paper Code	Hours	Marks
Major Paper VII	Natural Regions of the World		3	100
Major Paper VIII	Fundamentals of Remote Sensing and GIS	Common paper for M.Sc. Paper - 9	3	100
Major Paper IX	Agricultural Geography	Common paper for M.Sc. Paper - 7	3	100
Major Paper X	Urban Geography	Common paper for M.Sc. Paper - 4	3	100
Major Paper XI	Geographical Thoughts	Common paper for M.Sc. Paper - 5	3	100
Major Paper XII	Biogeography		3	100

### **7. Passing Minimum :**

A candidate shall be declared to have passed the examination if he/she secures not less than 50% of the marks in each paper. Candidates who do not secure the required minimum marks for a pass in a paper shall be required to appear for and pass the same at a subsequent appearance.

### **8. Classification of successful candidates :**

Candidates who secure not less than 60% of the aggregate marks in Major Subject shall be declared to have passed the Examination in the First Class. Candidates who secure not less than 50% of the aggregate marks in Major Subject but below 60% shall be declared to have passed the examination in the Second Class. All other successful candidates shall be declared to have passed in Third class.

### **9. Ranking :**

Candidates who pass all the Examinations prescribed for the course in the first appearance only are eligible for ranking.

### **10. Maximum Duration for the completion for the PG Programme:**

The maximum duration for the completion of the PG Programme shall not exceed four years.

### **11. Commencement of this Regulation :**

These regulations shall take effect from the academic year 2014-2015, i.e. for students who are to be admitted to the first year of the course during the academic year 2014-2015 and thereafter.

### **12. Pattern of Question Paper for THEORY paper :**

Time : 3 Hours

Maximum : 100 Marks

Passing Min : 50 Marks

**Part A : (5 x 5 = 25)**

(Answer all questions)

(Two questions from each unit with internal choice (either or type))

**Part B : (5 x 15 = 75)**

(Answer all questions)

(Two questions from each unit with internal choice (either or type))

**I - YEAR**  
**PHYSICAL GEOGRAPHY**  
**GEOMORPHOLOGY**

**Unit-I** : Nature, Scope and Development – Basic Concepts in Geomorphology – Endogenic processes – Fold, Fault, Earthquake, Volcanoes – Continental Drift – Plate Tectonics. Exogenic processes – Weathering – Mass movement – Soils

**Unit-II** : Landforms associated with fluvial, Glacial, Arid, Coastal and Karst topography. Climatic Geomorphology – Morphogenetic regions – Applied Geomorphology

**Unit-III** : Structure and Composition of the Atmosphere – Insolation – Heat balance – Temperature – Factors controlling temperature distribution – Green house gases. Atmospheric pressure – Pressure belts – Horizontal and vertical distribution of pressure Wind systems – General circulation – Planetary winds – Seasonal and Local winds – Jet Stream.

**Unit-IV** : Humidity – Evaporation – Condensation – Forms – Clouds – Precipitation – Types and Distribution. Air masses – Classification – Fronts – Atmospheric disturbances – Tropical cyclones and Temperate cyclones.

**Unit-V** : Distribution of Land and Water – Continental Shelf, Continental Slope, Abyssal Plain, Oceanic Ridge and Trench – Relief of Atlantic, Pacific and Indian

Ocean. Distribution of Temperature and Salinity in Ocean and Sea. Waves and Tides – Ocean currents and coral reefs.

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**REFERENCE BOOKS:**

1. A textbook of Geomorphology – Dayal, P., Shukla Book Depot, 1996
2. Geomorphology - Chorley et al, Methuen, 1984
3. Principles of Geomorphology – Thornbury, W.D. John Wiley, 1984
4. Geomorphology – Sparks, Longmans, 1976
5. General Climatology, Critchfield, H.J., Prentice Hall of India, Private Ltd. 1997.
6. Climatology – Lal, D.S. Chaitanya Publishing House, Allahabad, 1996
7. An Introduction to Climate – Trewartha, McGraw Hill, 1980
8. Lal, D.S.: Oceanography, 2010.
9. Vattal and Sharma: Oceanography, 2009.

**POPULATION AND SETTLEMENT GEOGRAPHY**

**Unit-I :** Nature, scope and significance of Population Geography – Sources of Population data – Reliability of population data – World population growth and distribution – Factors affecting the distribution of population.

**Unit-II :** Dynamics of Population – Fertility – Measures and determinants of Fertility – World trend – Mortality – Population composition – Sex, Age Structure, Literacy - determinants World pattern of literacy.

**Unit-III :** Theories of population growth – Malthus – Demographic Transition – Optimum population, over population and under population - Migration – Types – Determinants – Major consequences of migrations – Laws of migration - Population problems.

**Unit-IV :** Settlement Geography: Scope and Content – Origin of settlement – Temporary settlement – Classification of rural settlement – Rural and Urban settlement – Function and Pattern of rural settlement.

**Unit-V :** Urban Settlement: Site and Situation – Classification of towns – Zoning of towns – Urban Morphology – Urban hierarchy.

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**REFERENCE BOOKS:**

1. The End of World Population Growth in the 21<sup>st</sup> century: New Challenge for Human Capital formation and Sustainable Development – Lutz, W. Sanders, W.C. and Scherbov, S. - Earthscan, London 2005.
2. Geography and Population: Approach and Applications - Clarke John, I. (ed.), Pergamon Press Ltd. Oxford, 1984
3. Population Geography - Clarke, J.I., Pergamon Press Ltd., Oxford, 1972
4. Population Geography: A Reader, Demko G.J., Rose, H.M. and Schnell, G.A., McGraw Hill Book Co., New York, 1970
5. Principles of Demography, Bogue Donald, J., John Wiley & Sons, New York, 1969
6. A Geography of population: World Patterns - Trewartha, G.T., John Wiley & Sons, New York, 1969
7. Population Geography, Wilson, M.G.A., Nelson, London, 1968
8. Geography of population, Beaujeu-Garnier, Longman Group Ltd, London, 1966

### **FUNDAMENTALS OF CARTOGRAPHY**

**Unit-I** : Meaning and Nature of Cartography – Arts and Science of Cartography – Cartography as a communication system - Historical development – Maps – Types of maps – uses of maps.

**Unit-II** : Map design and layout – Lettering and toponomy – Tools and techniques for map drawing – Base map - Compilation and generalization of maps.

**Unit-III** : Symbolizing and processing data – Statistical data base – Use of diagrams on maps – Point, line, area and volume symbols – Qualitative and Quantitative maps.

**Unit-IV** : Mapping the geologic structure, relief and terrain data – Mapping the climatological and hydrological data – Mapping the socio-economic data.

**Unit-V** : Map construction and reproduction – Developing processes – Photographic and Printing – Photostat – Contact prints – Electronic stencil cutters. – Computer Cartography – Digital Cartography – Satellite images in cartography.

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### **REFERENCE BOOKS:**



1. Cartography: Visualization of Geo Spatial Data – Menno Jan Kraak & Ferjan Ormeing, Pearson Education, New Delhi, 2003.
2. Fundamentals of Cartography – Misra and Ramesh, Concept Publishing House, New Delhi, 1989.
3. Elements of Practical Geography – Sigh, R.L., Kalyani Publishers, 1979.
4. Elements of Cartography – Robinson, John Wiley 4<sup>th</sup> 1978.
5. Maps and Diagrams – Monkhouse and Wilkinson, Methuen & Co. Ltd., London, 1973.
6. Principles of Cartography – Raisz, McGraw hill, 1962.

## **GEOGRAPHY OF RESOURCES**

**Unit-I :** Resources: Meaning – Nature and significance in Resources – Classification and Types – Need for Conservation and Sustainable Development,

**Unit-II :** Water Resources – Importance – Classification – Continent wise Distribution and Utilization of Water Resources – Problems and Issues.

**Unit-III :** Biotic Resources – Major Forest types and Distribution – Live stock- Fisheries – Major fishing grounds of the world.

**Unit-IV :** Minerals Resources – Classification and Distribution of major Minerals : Iron and Copper – Energy Resources – Coal, Petroleum, Hydro Electric and Atomic power – Major industrial zones of the world.

**Unit-V :** Transportation and Trade – Different Modes of Transport – Trade – Types, Factors affecting Trade – Multi lateral and Bilateral – Agreements of trade – WTO – GATT

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### **REFERENCE BOOKS:**

1. John. W. Alexander- Economic Geograpy.
2. Gohcheng Leong and Morgan- Economic and Human Geography.
3. Von Royan and Bergsten- Fundamentals of Economic Geography

4. R.S. Thoman- Geography of Economic Activities.

**REGIONAL GEOGRAPHY OF INDIA**

**Unit-I** : Location – Structure and relief – Drainage – Physiographic divisions – Climate – Rainfall – Climatic types – Soils – Natural Vegetation.

**Unit-II** : Agriculture – Salient features – Factors affecting, agriculture in India – Green revolution – Major crops – Rice, wheat, cotton, jute, tea, coffee, sugarcane and tobacco only – Irrigation – Need and types – Multipurpose river valley projects.

**Unit-III** : Power resources – Hydel, thermal and nuclear – Non conventional sources of energy – Mineral resources – Iron ore, manganese, bauxite and mica only – Fuel minerals – Coal and Petroleum – Major industries – Iron and steel, Cotton textile, Cement, Sugar and Jute industries only – Industrial regions of India.

**Unit-IV** : Population Growth and Distribution of Population – Population migration – Urbanisation in India.

**Unit-V** : Transport and communication – Land transport – Road and Railways – Water transport – Inland waterways – Ports – Air transport – Foreign trade – Exports and Imports.

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## **REFERENCE BOOKS:**

1. Geography of India – Tirtha,R. – Rawat Publications, 2002
2. Geography of India – Nag,P., and Sengupta,S., Concept of publishing Company, New Delhi, 1992.
3. Economic and Commercial Geography of India – Sharma T.C., and Cutchino, O., ViKas Publications, 1980.
4. A Geography of India – Gopal Singh, ATMA Ram Sons, Delhi, 1977
5. India and Pakistan, Spat O.H.K., and Learmonth, A.T.A., .I. Publications, Maras, 1972.
6. Regional geography of India – Singh R.L., NGSi, Varanasi, 1971.
7. Economic and Commercial Geography of India – Mamoria, C.B. Kitab Mahal, Allahabad.
8. Government of Tamilnadu Publication – Tecno – economic Survey of India.

## **GEOGRAPHY OF TRAVEL AND TOURISM**

**Unit-I :** Tourism: Scope and Content-Basic components of tourism: Attraction, Accessibility and Accommodation -Factors affecting tourism activities-Types of tourism.

**Unit-II :** Travel documents. Passport and Visa –types-Tourist facilities and services: Transport facilities – Accommodation, catering and Hospitality-Entertainment, Trade, fairs, festival, sports and games.

**Unit-III :** Accommodation: Significance and role in tourism industry - Hotel types, Motels, Chou tries, Guest Houses, Youth Hostels, tour operators.

**Unit-IV :** Tourism and Travel agencies-functions- role of trade fairs and festivals- National and International Sports and Games as Promoters-Tourism in tamil Nadu-Impact on Economy.

**Unit-V :** Major Tourist Centers of India- Selected centers only (New Delhi, Hyderabad, Jaipur, Agra, Shimla, Ajanta and Ellora) – A Geographical study of tourist centers: - Udgamandalam, Kodaikanal, Yercaud, Chennai and Bengaluru.

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## **REFERENCE BOOKS:**

1. Pran Nath Seth and Sushama Seth Bhat-An Introduction to Travel and Tourism
2. Biswanath Ghosh-Tourism and Travel Management.
3. A.P. Singh-Himalayan Environment and Tourism.
4. R.W. Kanl-Dynamics of Tourism a Trilogy-Vol-I
5. Bhatia-Tourism Development.
6. S.N. Singh-Geography of Tourism.
7. Manoj Doa-India: A Tourist Paradise

## **II - YEAR**

### **NATURAL REGIONS OF THE WORLD**

**Unit-I :** Definition – Natural Regions of the World – Equatorial Region : Situation and extent, Climate, Natural Vegetation , Animal life, Human life and Economic Development

**Unit-II :** Tropical Region – Tropical Monsoon Region – Tropical Savanna – Climate – Soil – Vegetation – Life in tropics – Economic Activity

**Unit-III :** Arid Region – World Deserts – Hot Deserts – Cold Deserts – Climate – Soil – Vegetation – Life in Deserts – Economic Activity

**Unit-IV :** Temperate Region – World Grasslands – ( Prairies – Pampas – Downs – Valdes – Canterbury ) Climate – Soils – Life in Temperate Regions – Economic activity

**Unit-V :** Tundra region – Arctic region – Climate – Vegetation – Life in Tundra Region – Economic Activity.

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## **REFERENCE BOOKS:**

1. Heintzelman H. et. Al., (1985) World Regional Geography, Prentice Hall Ltd., New Delhi.
2. Hussain Majid (2004) World Geography, Rawat Publication, New Delhi.
3. Robinson H. (1977) Monsoon Asia Mac Donald and Evans Ltd., Plymouth
4. Stamp L.D. (1967) Asia: A Regional and Economic Geography, B.I. Publication Ltd., New Delhi.
5. Tirth Ranjit (2005) Geography of Asia, Rawat Publication, New Delhi.
6. Wheeler J. et, al., (1975) Regional Geography of the world, Holt Rionchart and Winston, New Delhi.

## **FUNDAMENTALS OF REMOTE SENSING AND GIS**

**Unit-I :** Remote sensing – Historical development – Development of Remote Sensing in India – Electromagnetic Radiation – Interaction of EMR with earth surface and atmosphere – Platforms – Sensors.

**Unit-II :** Aerial Remote Sensing – Types of aerial photographs – Elements of Interpretation – Visual Interpretation – Equipments used for interpretation – Photogrammetry.

**Unit-III :** Satellite Remote Sensing – Visual Image Interpretation – Digital Image Processing – Image Rectification – Image Enhancement techniques – Image Classification – Supervised and unsupervised classification.

**Unit-IV :** GIS – Components – Data sources – Data models – Query, Buffer, Overlay, Neighbourhood analysis – Generation of DEM – TIN – Data Integration – GPS.

**Unit-V :** Application of Remote Sensing and GIS in Geographical Studies – Disaster Management – Land use Planning – Urban Planning.

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## **REFERENCE BOOKS:**

1. Introduction of Remote Sensing – Campbell, James,B., Taylor & Francis, London & New York, 2002.
2. Remote Sensing and Image interpretation – Lillesand, T.M., and Kiefer, R.W., John Wiley and Sons, Inc, New York, 2002.
3. Digital Remote Sensing – Nag,P. and Kudrat, M., Concept Publishing Company, New Delhi, 1998.
4. Remote Sensing and Photogrammetry; Principles and Applications – Jhanwar, M.L., and Chouhan, T.S., Vigyan Praksham, Jodhpur, 1998.
5. Readings in Remote Sensing Applications – Chouhan, T.S., and Joshi, K.N.,(ed)., Scientific Publishers, 1992.
6. An Introduction to Geographical Information Systems – Heywood,I., Cornelius,S. and Carver,S.Pearson,Education., 2005.
7. Concepts and Techniques of Geographic Information Systems – Yeung, Albert, K.W., Prentice Hall of India Private Ltd., New Delhi, 2004.
8. Geographic Information Systems:Socio-economic application – Martin,D.Routledge, London, New York., 2002.

## **AGRICULTURAL GEOGRAPHY**

**Unit-I** : Nature scope and significance of Agricultural Geography – Approaches to the study of Agricultural geography – Elements of agriculture.

**Unit-II** : Determinants of agricultural land use – Physical, economic, social, institutional and technological determinants.

**Unit-III** : Von-Thuen’s theory of agricultural location and its recent modifications – Land use – Types – Land use surveys – Land capability classification.

**Unit-IV** : Agricultural productivity-Factors affecting productivity – Measurement of agricultural productivity – Crop combination – Delimitation of crop combination regions – Weaver – Crop diversification regions.

**Unit-V** : Agricultural regions of the world – A review of Whittlessey’s agricultural classification – Agricultural regions of India – Characteristics – Agricultural Problems.

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**REFERENCE BOOKS:**

1. Agricultural Geography-Hussian,M.,Inter-India Publications,Delhi,1979
2. Agricultural Geography-Morgan,W.B,and Munton,R.J.C.,London,1971
3. Agricultural Geography-Jaspir Singh and Dhillon,Tata McGraw Hall, Pub.Company Ltd., New Delhi

## **URBAN GEOGRAPHY**

**Unit-I :** Nature, scope and development of urban geography – Urbanization – Factors affecting urban growth – World urbanization – Urbanization in Developing countries – Urbanization in India.

**Unit-II :** Demographic structure of cities – Age and sex structure – Population density distribution – Models – Occupational structure – Urban land use –Types Central business district – Delimitation – Residential land use – Types – Central business district – Delimitation – Residential land use – Urban land use change.

**Unit-III :** Urban land use models: – Burgess – Hoyt – Harris and Ullman – Urban ecology – Social Area analysis – Economic Base and functional organization of the city – Basic and Non basic concept – Functional classification of the city – Basic and Non basic concept.

**Unit-IV :** Urban expansion – Vertical and Horizontal– Urban renewal – Urban sprawl – Rural – Urban Fringe – Suburbs: – Growth and its characteristics – City region – Umland demarcataion.

**Unit-V** : Urban hierarchy – Rank size rule – Central Place theory – Urban Problems:–Slums, Transport, Solid waste management, Drinking water supply – Pollution –Urban Planning.

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**REFERENCE BOOKS:**

1. The Study of Urban Geography-Carter,H.,Arnold,2002
2. Urbanization and Landuse Conflict at Urban Fringes-Bimal Kumar (ed) A.P.H. Publishing Company,1998
3. Urban Geography-Tim Hall,Routledge,1998
4. Urban Geography –Northam
5. The North American City-Yeats,M.and Garner,B.,Harper and Row,1976
6. Urban Society-Gist,N.P.and Fava,S.F.,Thomas,Y.Crowell Company,New York,1974
7. Urban Geography:An Introductory Analisis-Johnson,J.H.,Pergamon Press,Oxford,1972.
8. The Geography of Towns –Jones.Oxford University Press,1970
9. Readings in Urban Geography-Mayer,H.M.and Kohn,C.F.Central Book Depot, Allahabad,1967.

**GEOGRAPHICAL THOUGHTS**

**Unit-I** : Geographical thought:– Greeks, Romans, Arabs – German – French – British – America and Indian Geographical Thought. The impact of Explorations and Discoveries.

**Unit-II** : Traditions in Geography – Man – Land, Area Studies, Spatial and Earth Science Traditions – Dualism and Dichotomy – Systematic and Regional, Deterministic and Possibilistic, Physical and Human, Ideographic and Nomothetic, Qualitative and Quantitative.

**Unit-III** : Explanations in Geography – Models and Theories in Geography – Significance of model – Need of model in Geography – Features of model and types of model.

**Unit-IV** : Recent trends in Geographic Studies – Resource Management – Environmental Impact Assessment – Risk Analysis – Human Rights and Conflict Resolution.



**Unit-V** : New Techniques in Geography – Spatial Technology – Remote Sensing – GIS and GPS.

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**REFERENCE BOOKS:**

1. Modern Geographical Thought – Peet,R, Blackwell Publishers, 2004.
2. Radical Geography – Peet, R., Rawat Publication, Jaipur & New Delhi, 2002.
3. Evolution of Geographical Thought – Hussain, M, Rawat Publication, 2002.
4. Themes in Geographic Thought – Harvey, M.E. & Pilly B.P. (ed), Rawat Publications 2002.
5. Geographical Thought: A Contextual History of Ideas – Dikshit, R.D., Prentice Hall of India Private Ltd., 1997.
6. Geography: A Modern Synthesis – Haggett, P., Harper & Row Publishers, 1979.
7. Explanation in Geography – Harvey, Arnold 1972.
8. Conceptual revolution in Geography – Davies, University of London 1972.
9. The changing nature of Geography – Minshull, Hutchinson 1970.
10. Hundred years of Geography – Freeman, Hutchinson 1961

**BIO GEOGRAPHY**

**Unit-I** : Bio – Geography : Definition , Scope and significance – Basic Ecological Principles - Bio- Energy cycle in the Terrestrials Eco-system- Tropical level and food chain.

**Unit-II** : Evolution of life on Earth : Origin of Fauna and Flora- plants and Animal evolution throughout the geological times- distribution of plant life on the earth- concepts of Biome, Eco-tone and community.

**Unit-III** : Bio- Diversity: Problems of Extinction of plant and animal life- Habitat decay and need for conservation- Process of Desertification and its Consequences- Industrial Effluents and their affects on fresh water Biology.

**Unit-IV** : World Biomes: Major Biomes- Tropical forest- Tropical Grasslands- Temperate Grassland and Tropical Deserts.

**Unit-V : Ecological and Environmental Managements: Study of Ecological regions of Himalayas and the Western –Ghats-Conservation and Management-Major Global Environmental Problems- International Co- Operation.**

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**REFERENCE BOOKS:-**

1. Ssvindra singh- Environmental Geography,
2. Robinson- H. Biogeography.
3. Nigel Pears- Basin Biogeography,
4. Newbegin.I.- Plant and animal, Geography

**MODEL QUESTION PAPER**

**PERIYAR UNIVERSITY, SALEM – 11  
PERIYAR INSTITUTE OF DISTANCE EDUCATION (PRIDE)**

**M.A., DEGREE EXAMINATION**

Name of the course: **M.A., GEOGRAPHY**

Title of the Paper: **POPULATION AND SETTLEMENT GEOGRAPHY**

Time: 3Hrs

Maximum: 100 Marks

**SECTION – A**

**(5 x 5 = 25)**

*Answer ALL the Questions*

1. a) Briefly explain nature and scope of Population geography.  
OR  
b) Bring out the sources of Population data.
2. a) Bring out the role of economic factors in determining Population distribution.  
OR  
b) Write a brief account on the pattern of Population density in India
3. a) Discuss the sex composition in India.  
OR  
b) Narrate the Components of Population Changes.
4. a) Write a short note on different types of migration.  
OR  
b) Write a brief account on consequence of migration.
5. a) Briefly discuss the optimum population theory.  
OR  
b) Give a brief note on India's Population policy.

**SECTION – B**

**(5 x 15 = 75)**

*Answer ALL the Questions*

6. a) Discuss the various sources and method of data collection.  
OR  
b) Give a detailed on factors affecting site and situation of the settlement.
7. a) Write an essay on the Malthus Population growth theory.  
OR  
b) Elaborately discuss about the various settlement patterns.
8. a) Discuss the different states of demographic transition with suitable examples.  
OR  
b) Give a detailed account on classification of rural and urban settlement.

9. a) Elucidate the causes and effects of Migration.

OR

b) Explain the theories relating to morphology of town with illustration.

10.a) Examine the Problems associated with over Population in India.

OR

b) Write an essay of Christaller's settlement theory.

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