

**Periyar university**

**Salem-636011.**

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

**B.Sc., DEGREE**

**BRANCH -GEOGRAPHY**

**(Non-Semester Pattern)**

**REGULATIONS AND SYLLABUS**

**FOR**

**Students admitted during**

**2014-2015 onwards**

**Periyar institute of distance education (pride)**

**B.Sc. 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 :**

A pass in the Higher secondary Examination (10+2 Pattern) of Tamil Nadu Higher Secondary Board or some other Board accepted as equivalent there to by the syndicate of the Periyar University. (Copy Enclosed)

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

The course of the study shall be based on Non-Semester pattern and consist of total period of three 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 for the B.Sc. Degree in the Branch- Geography shall consist of the following.

- i) Foundation Courses ( Language and English )
- ii) Core Courses: ( Major and Allied subjects )

Major : Geography

Allied I- Geography of Travel and Tourism

Allied II- Basis of Cartography

#### **5. Examinations :**

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

The Syllabus has been divided into three parts. Examinations for I, II and III Parts will be held in April/May.

The practical examinations will be held at the end of I year, II year and III year.

**AOS – There are Three Papers has been included syllabus, in which the candidates has to choose any one of papers as AOS Subjects.**

## 6. Scheme of Examination :

First year	Title of the paper	Suggested Paper Code	Hours	Marks
Paper I	Language I		3	100
Paper I	English I		3	100
Major Paper I	Climatology and Oceanography	14PUGE01	3	100
Major Practical I	Maps and Scales	14PUGEP01	3	100
Allied I	Geography of Travel and Tourism	14PUGEA01	3	100

Second year	Title of the paper	Suggested Paper Code	Hours	Marks
Paper II	Language II		3	100
Paper II	English II		3	100
Major Paper II	Geomorphology	14PUGE02	3	100
Practical II	Representation of Climatic and Economic Data	14PUGEP02	3	100
Allied II	Basics of Cartography	14PUGEA02	3	100

Third year	Title of the paper	Suggested Paper Code	Hours	Marks
Major Paper III	Geography of India	14PUGE03	3	100
Major Paper IV	Natural regions of the World	14PUGE04	3	100
Major Paper V	Human Geography	14PUGE05	3	100
Major Paper VI	Geography of Asia	14PUGE06	3	100
Major Paper VII	Remote Sensing and GIS	14PUGE07	3	100
Practical III	Map interpretation and projections	14PUGEP03	3	100

**Application Oriented Subjects:** (Any one of the following)

1. Geography of Tamil Nadu

2. Geography of Resources
3. Bio-Geography

**7. Passing Minimum :**

A candidate shall be declared to have passed the examination if he/she secures not less than 40% of the marks in each paper/practical. Candidates who do not secure the required minimum marks for a pass in a paper/practical 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 Part III – Core Course (Main and Allied subjects) shall be declared to have passed the Examination in the First Class. Candidates who secure not less than 50% of the aggregate marks in Part III core course (Main and Allied subjects) 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 UG Programme:**

The maximum duration for the completion of the UG Programme shall not exceed **six** 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 and ALLIED paper :**

Time : 3 Hours

Maximum : 100 Marks

Passing Min : 40

**Part A : (10 x 2 = 20)**

(Answer all questions)

(Two questions from each unit)

**Part B : (5 x 4 = 20)**

(Answer all questions)

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

**Part C : (5 x 12 = 60)**

(Answer all questions)

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

**Pattern of Question Paper for PRACTICAL :**

Time : 3 Hours

Maximum : 100

For Practical : 75

\*For Record : 25

Answer all questions

(5 x 15 = 75)

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

\*A separate practical record note book must be submitted at the time of practical examinations, which carries 25 marks in the practical examinations.

## I - YEAR

### CLIMATOLOGY AND OCEANOGRAPHY

**Unit- I:** Definition and Significances of Climatology - Elements of Weather and Climate, Composition and Structure of the Atmosphere, Heat budget, Horizontal and Vertical Distribution of Temperature and factors affecting them.

**Unit-II:** Atmospheric Pressure: Vertical and Horizontal distribution and factors affecting — Coriolis force and Deflection. Winds: Causes and Types - Jet stream, planetary winds, Monsoon and Local winds.

**Unit-III:** Atmospheric moisture and Precipitation: Humidity types - Condensation – Cloud types – Precipitation and Rainfall: Types and measurements. Air Masses and Fronts: types, classification and properties – Tropical and Temperate Cyclones,

**Unit-IV:** Oceanography: Distribution of Land and Sea – Hypsometric Curve, Surface Configuration of the Ocean Floor: Continental Shelf, Continental Slope, Deep Sea Plain, Oceanic Deeps and Submarine Canyons.

**Unit-V:** Relief Features of the Major Oceans: Atlantic, Pacific and Indian Ocean –Salinity: Factors Affecting Salinity and Distribution – Waves and Tides – Ocean deposits and coral reefs.

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**REFERENCE BOOKS:**

1. Critchfield, H., (1975): General Climatology, Prentice-Hall, New York.
2. Das, R. K., (1968): The Monsoons, National Book Trust, New Delhi.
3. Mather, J. R., (1974): Climatology, McGraw Hill, New York..
4. Stringer, E. T., (1982): Foundation of Climatology, Surjeet Publications, New Delhi.
5. Trewartha, G. T., (198): An Introduction to Climate, International Students Edition, McGraw Hill, New York.. York.
6. Ramasamy, G., (1970): Oceanography (Tamil Edition), Tamil Nadu Text Book Society, Chennai.
7. Sharma, R. C. and Vatel, M., (1970): Oceanography for Geographers, Cheytanya Publishing House, Allahabad.

## **PRACTICAL I**

### **MAPS AND SCALES**

**Unit-I:** Map: Definition and types-Geo co-ordinate system: Latitude and Longitude. Time Zone and International date line.

**Unit-II:** Scales: Meaning and types – Construction of linear, Comparative and Diagonal scale – Conversion of scales.

**Unit-III:** Measurement of distance: Thread, divider and Rotometer method. Measurement of Area: Square and Strip methods. Enlargement and reduction of Map: Square and Similar Triangle method.

**Unit-IV:** Representation of climatic data: climatic graphs, Climograph, Hythergraph and Ergo graph-Wind rose diagram.

**Unit-V:** Representation of Relief features-Interpolation of Contours- Contour diagrams with Cross-section.

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**REFERENCE BOOKS:**

1. Gopal Singh (1996): Map Work and Practical Geography, Vikas Publishing House Pvt. Ltd., New Delhi.
2. Khan Z.A. (1998): Text Book of Practical Geography, Concept Publishing Co., New Delhi.
3. Khullar D.R. (2004): Essentials of Practical Geography, New Academic Publishing Co., Jalandhar.
4. Monkhouse F.J., and Wilkinson H.R., (1961): Maps and Diagrams, Methuen & Co., New York.
5. Negi B.S. (1995): Practical Geography, Kedar Nath, Meerut.

## ALLIED - I

### 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 (Jaipur, Agra, Shimla, Ajanta and Ellora) – A Geographical study of tourist centers: - Udgamandalam, Kodaikanal, Yercaud, Bangalore and Mysore.

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#### **REFERENCE BOOKS:**

1. Pran Nath seth and Sushama seth bhat-an introduction to Travel and Tourism
2. Biswanth Ghosh-Tourism and Travel Management.
3. A.P Singh-Himalayan Environment and tourism.
4. R.W. Kanl-dynamics if Tourism a Triology-Vol-I
5. Bhatia-Tourism Development.
6. S.N Singh-Geography of Tourism.
7. Manoj Doa-India: A Tourist Paradise

## **II - YEAR**

### **GEOMORPHOLOGY**

**Unit-I:** Meaning – scope - content and significance of Geomorphology – Internal structure of the earth – Rock Types: Igneous, sedimentary and metamorphic.

**Unit-II:** Geomorphic Processes: Internal and external processes – Diastrophism and Denudation, Internal Process - Faults, Folds and Cracks, Volcanism and Earthquakes: types and distribution.

**Unit-III:** External processes: Weathering: Physical, Chemical and Biological. Mass wasting: Soil creep, landslide, rock fall, rock slip and mud flow.

**Unit-IV:** Landforms produced due to erosion and deposition with reference to: a. Running water, and b. Underground water.

**Unit-V:** Landforms produced due to erosion and deposition with reference to: a) Glaciers, b) Winds, and c) Waves.

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#### **REFERENCE BOOKS:**

1. Dayal, P. A., (1996): Text book of Geomorphology, Shukla Book Depot, Patna.
2. Kale, V. and Gupta, A., (2001): Elements of Geomorphology, Oxford University Press, Calcutta.
3. Monkhouse, F. J., (1960): Principles of Physical Geography, Hodder and Stoughton, London.
4. Pitty, A., (1974): Introduction to Geomorphology, Methuen, London.
5. Singh, S., (1998): Geomorphology, Prayag Pustakalaya, Allahabad.
6. Sparks, B. W., (1960): Geomorphology, Longmans, London.
7. Strahler, A. N. and Strahler, A. H., (1992): Modern Physical Geography, John Wiley and Sons, New York.
8. Sivamoorthy, A., (1964): Geomorphology (Tamil Edition), Tamil Nadu Text Book Society, Chennai

## **PRACTICAL II: REPRESENTATION OF CLIMATIC AND ECONOMIC DATA**

**Unit-I:** Weather map and Synoptic chart – Beaufort scales for wind speed -- Station model.

**Unit-II:** Interpretation of Weather map (Indian Daily Weather Report: January, July, May and November only)

**Unit-III:** Representation of economic data: One dimensional diagrams – Bars: Two dimensional diagram: Rectangular, Squares and Circles – Three Dimensional diagrams: Curbs and spheres.

**Unit-IV:** Pyramidal Diagrams – Pictorial – Flow. Line and Pie diagrams

**Unit-V:** Methods of Representing distribution of Data – Drawing of Isopleths, Choropleths, Chorochromatic and Choroschematic Maps.

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### **REFERENCE BOOKS:**

1. F.J. Monkose and H.R. Wilkinson – Maps and Diagrams.
2. Gopal Singh – Map work and Practical Geography
3. Zamir Ali – Text book of Practical Geography
4. Misra. R.P and Ramesh.A – Fundamentals of Cartography.
5. B.S Nagi – Practical Geography.
6. Pijushkanti saha and Partha Basu – Advanced Practical Geography.

## ALLIED – II

### BASICS OF CARTOGRAPHY

**Unit – I:** Cartography – Nature, Scope and Content of Cartography – Arts and Science of Cartography – Cartography as a system of communication – Maps – Classification and their uses – Growth, development and modern trends in cartography.

**Unit – II:** Map drawing and Measuring Techniques – Map Setting – The Earth and System of Co-ordinates – Base Map – Compilation and Generalization of Maps.

**Unit – III:** Symbolization: Types of Cartographic symbols – Point, line, and Area symbols – Qualitative and Quantitative data generalization.

**Unit – IV:** Map Design and Layout: General design problems – Principles of Cartographic design and design of map symbols – Lettering – Lettering methods, Positioning of letters – Geographical names.

**Unit – V:** Map Reproduction – Process of Map production –Photographic systems – Multiple Reproduction Processes – Computer application in Cartography – Computer mapping – Remote Sensing and Cartography – Uses of Air photographs and Satellite images in Cartography.

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#### **REFERENCE BOOKS:**

1. Misra R.P. and A.P. Ramesh – Fundamentals of Cartography
2. Robinson – Elements of Cartography
3. Keats J.S – Cartographic Design and Production.
4. Raiz – Principles of Cartography.

## III YEAR

### 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.

## **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.

## **HUMAN GEOGRAPHY**

**Unit-I:** Basics: Scope and Content of Human Geography-Interrelationship between Man and Environment-Concepts-Determinism, Possibilism, Neo-Determinism and Probablism.

**Unit-II:** Race-Major Races:-Caucasoid, Mongoloid and Negroid-Distribution-Racial Conflicts and Racial Prejudice.

**Unit-III:** Religion: Distribution of world religion: Hinduism, Christianity, Islam, Buddhism and Judaism.

**Unit-IV:** Languages: Major world Languages and their distribution-Geographical factors-Significances.

**Unit-V:** Population: World population distribution – factors affecting distribution - growth and its trends –Population theories: Malthusian theory, Optimum population, over population and under population – Population problems.

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### **REFERNCE BOOKS:**

1. Majid Husian-Human Geography.
2. G.T. Trewarta-Geography of Population.
3. Goh Chenleong and Gilan C.Morgan-Economic and Human Geography.

## **GEOGRAPHY OF ASIA**

**Unit-I:** Significance of Geographical Location – Physiographic – Climate – Drainage systems

**Unit-II:** Soil types and Classification – Agricultural Production – Rice and Wheat – Rubber, Tea and coffee, Sugar cane and Jute

**Unit-III:** Mineral and Energy Resources – Iron ore, Manganese, Tin, Bauxite, Coal, Petroleum and Natural Gas

**Unit-IV:** Industrial Production and Distribution – Iron and Steel, Cotton and textile, Sugar cane and Automobile

**Unit-V:** Population- Transport and Trade and Commerce

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### **REFERENCE BOOKS:**

1. Human and Economic Geography by co-chang leoang, Oxford press
2. World Geography – Hembridge
3. Geography of Asia- Dobby
4. A Regional Geography of the world – D. S. Manku

## **REMOTE SENSING AND GIS**

**Unit-I:** Remote Sensing: Definition and Types: Aerial, Satellite and Radar, Development of Space Programmes - History and Organization Associated with Remote Sensing in India and in other Countries.

**Unit-II:** Remote Sensing: Sources of Energy, Electromagnetic Radiations (EMR) Atmospheric Windows, Energy Interaction with Atmosphere and Earth, Types of Platforms, Active and Passive Remote Sensing Methods, Ideal Remote Sensing Systems.

**Unit-III:** Fundamentals of Aerial Remote Sensing: Components of Aerial Camera, Types of Aerial Photographs, Marginal Information of Aerial Photographs, elements of Photo Interpretation.

**Unit-IV:** Fundamentals of Satellite Remote Sensing: Types of Satellites: Geo-stationary and Sun-synchronous Satellites, Resolution: Spatial, Spectral, Radiometric and Temporal, Types of Data Products, Marginal Information of Satellite Images.

**Unit-V:** Geographical Information Systems (GIS) Meaning-Developments-Raster and Vector data-Data integration-Global positioning system (GPS) Advantages and Limitations of GIS and GPS.

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### **REFERENCE BOOKS:**

1. Barret, E.C. and Curtie L.F. (1990): Introduction to Environmental Remote Sensing, Chapman and Hall, London.
2. Cambell, James B. (1987): Introduction to Remote Sensing, The Guilford Press, New York.
3. Lillesand, T. M. and Kieper (1987): Remote Sensing and Image Interpretation, John Willy and Sons, New York.
4. Lueder, D.R. (1959): Aerial Photographic Interpretation, McGraw Hill Book, Co., New York.
5. Wolf, P.R. (1974): Elements of Photogrammetry, McGraw Hill, New York.

## **PRACTICAL-III**

### **MAP INTERPRETATION AND PROJECTIONS**

**Unit-I:** Conventional signs and Symbols in Indian topographical maps - Appreciation of Indian topographical sheet.

**Unit-II:** Interpretation of Indian topographical maps – (Plain, Plateaus, Hills and Mountains only)

**Unit-III:** Map projections: Definition, significance and classification- construction of Zenithal projections: Equidistant, Equal area, Gnomonic and orthographic (or) Stereographic projection.

**Unit-IV:** Construction of Cylindrical projection: Equidistant, Equal area and Mercator Projection.

**Unit-V:** Simple Conical Projections with one and two standard parallel's- Bonne's and Polyconic projections.

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#### **REFERENCE BOOKS:**

1. Jayachandaran.S., (1964): Practical Geography (Tamil Edition), Tamil Nadu Text Book Society Chennai.
2. Khan.Z.A., (1998): Text Book of Practical Geography, Concept Publishing Company, New Delhi.
3. Negi, B.S., (1995): Text Book of Practical Geography. Kedar Nath, Meerut.
4. Gopal Singh (1996): Map works Practical Geography, Vikas Publishing House, Pvt. Ltd., New Delhi.
5. Mankhouse, F.J., and Wilkinson, H.R., (1980): Maps and Diagrams, B.I. Publication, New Delhi.

## **APPLICATION ORIENTED SUBJECT**

### **GEOGRAPHY OF TAMIL NADU**

**Unit-I:** Location and Extent – Administrative units – Major relief features  
Major rivers – Climate: temperature, Seasonal and Annual rainfall distribution,  
Soil: types and their distribution.

**Unit-II:** Forest, livestock and fisheries - types and distribution, forest products,  
Livestock: cattle, sheep, dairying and fisheries-inland and deep-sea fishing.

**Unit-III:** Irrigation and Agriculture Resources: types and distribution – canal,  
tank and well irrigation, Agriculture: distribution and production of rice, cotton,  
sugarcane, and rain fed crops, oil seeds, tea and coffee.

**Unit-IV:** Mineral and Industrial Resources: General distribution and production.  
Power resources: Hydel, thermal, atomic and wind power, Industries:  
distribution and production of – cement, sugar, cotton, automobile and paper.

**Unit-V:** Transport: Development and distribution of roads, railways, air and sea  
transportation - Important ports, Population – growth and distribution of rural  
and urban population.

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**REFERENCE BOOKS:**

1. Sakthi Venkata Kumaraswamy, (2002): Geography of Tamil Nadu (Tamil edition), Sakthi Abirami Pathipagam, Kumbakonam.
2. Statistical Hand Book of Tamil Nadu, (2004): Special Commissioner and Director Department of Economics and Statistics Government of Tamil Nadu, Chennai.
3. Tamil Nadu – An Economic Appraisal 1999-2000, Director, Department of Evaluation and Applied Research, Chennai.
4. Season and Crop Report of Tamil Nadu for the Agricultural year 2003-2004, Commissioner, Department of Economics and Statistics, Chennai.

## **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 Geography.
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.

## **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 anima, Geography

**MODEL QUESTION PAPER**

**PERIYAR UNIVERSITY, SALEM – 11**

**PERIYAR INSTITUTE OF DISTANCE EDUCATION (PRIDE)**

**B.Sc., DEGREE EXAMINATION**

Name of the course: **B.Sc., GEOGRAPHY**

Title of the Paper: **BASICS OF CARTOGRAPHY**

Time: 3 Hours

Max: 100 Marks

Section – A

(10 X 2 =20)

Answer **ALL** Questions

1. Cartography  
புவிப்படவியல்
2. Visual perception  
பார்வை அனுமானம்
3. Large scale map  
பெரிய அளவை புவிப்படம்
4. Base map  
அடிப்படை புவிப்படம்
5. Area symbol  
புரப்பு குறியீடு
6. Spot heights  
உயரப் புள்ளி
7. Style of lettering  
எழுத்து நடை

8. Quantitative data

எண்ணிக்கை தரவு

9. Computer cartography

கணினி வரைபடகலையியல்

10. Types of aerial photographs

வான்நிழற்படங்களின் வகைகள்

Section – B

(5 X 4 = 20)

Answer **ALL** Questions

11.a) Cartography is a communication system – explain

புவிப்படவியல் ஒரு தகவல் தொடர்பு சாதனம் - விளக்குக.

OR

b) Write a note about map design and layout.

மேப்புகளை வடிவமைத்தல் மற்றும் இறுதி அமைத்தல் பற்றி ஒரு குறிப்பு எழுதுக.

12.a) Briefly explain the various visual perception of map design

மேப்புகளின் பலவகையான அனுமானங்களை சுருங்க விளக்குக.

OR

b) Mention the drawing instruments used to draw maps

மேப்புகள் வரைவதற்கு பயன்படும் உபகரணங்களை குறிப்பிடுக.

13.a) Write a note about the size and shape of lettering in maps

மேப்புகளில் எழுத்துக்களின் அளவு மற்றும் வடிவம் பற்றி ஒரு சிறுகுறிப்பு எழுதுக.

OR

b) Differentiate the qualitative and quantitative data in cartography

தரத்தரவுகள் மற்றும் எண்ணிக்கை தரவுகளை வேறுபடுத்துக.

14.a) Give a short note on the development of lettering methods in a map.

ஒரு மேப்பில் எழுத்துக்கலை மேம்படுத்தும் முறைகளைப் பற்றி ஒரு சிறுகுறிப்பு தருக.

OR

b) Describe the short note on position of letters in maps

மேப்புகளில் எழுத்துக்களைப் பொருத்தும் முறையைப் பற்றி விளக்குக.

15.a) What is meant by map reproduction?

மேப்பு பிரதிகள் தயாரித்தல் என்பதன் பொருள் யாது?

OR

b) Explain the method of map printing process.

மேப்பு பிரதிகள் உருவாக்கலின் செயல்முறைகளை விளக்குக.

Section – C

(5 X 12 = 60)

Answer any **THREE** Questions

16.a) cartography is not only the art but also science of its kind – Explain.

புவிப்படவியல் ஒரு கலை மட்டும் அல்ல. அறிவியல் சார்ந்தது – விளக்குக.

OR

b) Discuss the modern trends in the cartography.

நவீன புவிப்படவியலின் போக்கினை விவாதி.

17.a) Give a detailed account on latitude and longitude coordinate system used for the preparation of maps.

மேப்புகள் தயாரிப்பதில் அட்ச மற்றும் தீர்க்கரேகை இணைப்பாயங்களின் பங்கினைப் பற்றி ஒரு விரிவான தொகுப்பு தருக.

OR

b) What are the problems faced by the cartographer during map compilation and generalization processes?

புவிப்படங்களை தொகுத்தலிலும் பொதுமைப்படுத்தலிலும் புவிப்பட வரைவாளர் சந்திக்கும் பிரச்சினைகள் யாவை?

18.a) Explain the characteristics of quantitative point, line and area symbol.

புள்ளி, கோடு மற்றும் பரப்பு எண்ணிக்கை குறியீடுகளின் பண்புகளை விளக்குக.

OR

b) Discuss the symbols used to make maps for socio-economic data.

சமூக, பொருளாதார தரவுகளை மேப்புகளாக்கப் பயன்படும் குறியீடுகளை விவாதி.

19.a) Explain the advantages of computer cartography.

கணினி புவிப்படவியலின் சாதகங்களை விவரி.

OR

b) Elaborate the methods, characteristics and uses of lettering on maps.

மேப்புகளில் எழுத்துகளின் முறைகள்.பண்புகள் மற்றும் பயன்களை விரிவாக்குக.

20.a) Describe the various methods of map reproduction techniques in cartography.

புவிப்படவியலில் பலவகையான மேப்புகளை பிரதியிடுத்தலின் முறைகளைப் பற்றி விவரி.

OR

b) Elaborately discuss the role of remote sensing in the data collection of cartography.

புவிப்படவியலுக்கு தரவுகள் சேரிப்பதற்கு தொலை உணர்வின் பங்கினை விரிவாக விவாதி.

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**MODEL QUESTION PAPER**

**PERIYAR UNIVERSITY, SALEM – 11**

PERIYAR INSTITUTE OF DISTANCE EDUCATION (PRIDE)

B.Sc., DEGREE EXAMINATION

Name of the course: B.Sc., GEOGRAPHY

Title of the Paper - Practical-I: MAPS AND SCALES

Time: 3 Hours

Max. Marks: 100

Practical: 5 x 15 = 75

Record = 25

Answer ALL question

(All Questions carry equal marks)

1. a) Define Time zone and International Date line.

நேரம் மண்டலம் மற்றும் பன்னாட்டு தேதிக்கோடு – வரைக.

b) If the time at 74° west longitude of New York is Monday 11.45 pm, then what will be the day and time at the 0° longitude of London Greenwich.

74° மேற்கு தீர்க்கரேகையில் உள்ள நியூயார்க்கில் திங்கள் கிழமை இரவு 11.45 மணி எனில் லண்டன் 0° கிரின்விச் தீர்க்கரேகையில் நேரம் மற்றும் நாள் என்ன?

OR

c) Define map and explain its various types.

மேப்புகளை வறையறுத்து அதன் வகைகளை விளக்குக.

d) If the time at the 0° longitude at London Greenwich is Saturday 7.35 am, then what will be the day and time at 82° 30' E longitude of Allahabad in India.

0° லண்டன் கிரீன் வீச்சில் நேரம் சனிக்கிழமை காலை 7.35 எனில் இந்தியாவின் 82°30' E கிழக்கு தீர்க்க ரேகையில் நாள் மற்றும் நேரம் என்ன?

2. a) The R.F. is 1:1,26,720. Construct a simple scale to show miles.

1:1,26,720 என்ற பிரிதிபின்னத்தைக் கொண்டு, மைல்களைக் காட்டும் ஒரு

சாதாரண அளவைக் கோடு வரைக.

OR

b) The given R.F. is 1:1,00,000. Draw a simple scale to show kilometer and meter.

1:1,00,000 என்ற பிரிதிபின்னத்தைக் கொண்டு, கீலோ மீட்டர்களையும், மீட்டர்களையும் காட்டும் ஒரு சாதாரண அளவைக் கோடு வரைக.

3. a) Calculate the length of the given road by the various measurement methods.

கொடுக்கப்பட்ட சாலையின் நீளத்தைப் பல்வேறு முறைகளில் அளவிட்டு தூரத்தை கணக்கிடுக.

OR

b) Enlarge the given Madhya Pradesh map scale of R.F 1:8,000,000 to 1:4,000,000.

கொடுக்கப்பட்ட மத்தியப் பிரதேச மாநில மேப்பினை 1:8,000,000 என்ற அளவையில் இருந்து 1:4,000,000 என்ற அளவைக்குப் பெரிதாக்கிக் காட்டுக.

4. a) Draw contour lines with 50 metres interval for the given spot height.

கொடுக்கப்பட்டுள்ள உயரப்புள்ளிகளுக்கு 50 மீட்டர் இடைவெளியில் சம உயரக்கோடுகள் வரைக.

OR

b) Draw contour lines with cross-sections for the given landforms.

கொடுக்கப்பட்ட சம உயரக் கோடுகளுக்கு குறுக்கு வெட்டுத் தோற்றம் வரைந்து நிலத்தோற்றங்களை வரைக.

- |                    |                         |
|--------------------|-------------------------|
| a) Conical Hill    | அ) கூம்பு வடிவ குன்று   |
| b) Water Falls     | ஆ) நீர் வீழ்ச்சி        |
| c) Plateau         | இ) பீடபூமி              |
| d) V-Shaped Valley | ஈ) V- வடிவ பள்ளத்தாக்கு |

5. a) Draw a wind rose diagram for the given data.

கீழே கொடுக்கப்பட்டுள்ள புள்ளி விவரங்களுக்கு காற்று திசை வரைபடம் வரைக.

**Station: Chennai**

Direction	N	NE	E	SE	S	SW	W	NW	Calm
Days	36	41	55	79	19	20	91	22	62

நிலையம் : சென்னை

திசைகள்	வ	வ.கி	கி	தெ.கி	தெ	தே.மே	மே	வ.மே	அமைதி
நாட்கள்	36	41	55	79	19	20	91	22	62

OR

b) Draw a Hythergraph for the following data.

**Station: Delhi**

Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temp. in °F	58	62	74	86	92	92	86	85	84	68	67	60
Rainfall in cm	1	0.6	0.5	0.4	0.7	2.9	7.6	7.0	4.7	0.5	0.8	0.4

கீழ்க்கண்டவற்றிற்கு ஹைதர் கிராஃப் படம் வரைக.

நிலையம்: டெல்லி

மாதங்கள்	ஜ	பி	மா	ஏ	மே	ஜூன்	ஜூலை	ஆ	செ	அ	ந	டி
வெப்பநிலை F°	58	62	74	86	92	92	86	85	84	68	67	60
மழைப்பொழிவு cm	1	0.6	0.5	0.4	0.7	2.9	7.6	7.0	4.7	0.5	0.8	0.4