



**MANGALORE UNIVERSITY**  
**MANGALORE**

**GEOGRAPHY SYLLABUS**

**CREDIT BASE SEMESTER SCHEME**

## SEMESTER -1 GE101

### PAPER-I, PHYSICAL GEOGRAPHY PART-1 “LAND FORMS AND BIOSPHERE”

Credit-02

Max Marks : 80

Int Ass : 20

Total : 100

Time : 3.00 hours

Max Instruction hours:64 hours

#### CONTENT

1.1 Field and Scope of Physical Geography	10:00 Hours
1.2 Distribution of land and water bodies.	
A. Continental Drift Theory of Wegener	6:00 Hours
2.1 Structure and Composition of the earth.	10:00 Hours
2.2 Rock-Origin , Types, Characteristics	6:00 Hours
3.1 Weathering of Rocks-Physical, Chemical, and Biological.	
3.2 Earthquakes and Volcanoes-	
Causes, effects, distribution and related land forms.	14:00 Hours
4.1 Denudation Agents of denudation.	
A. River B. Glacier C. Wind D. Underground water	14:00 Hours
5.1 Biosphere- Meaning, Ecology-Structure of Ecosystem and Energy flow.	14:00 Hours

#### Reference:

1. Dasagupta and Kapoor: Principales of Physical Geography, S.Chand & Co. New Delhi.2001
2. Enayat Ahmed: Physical Geography, Kalyani Publishers, Ludhiana, 1982.
3. Mallappa.P: Physical Geography, (Kannada Version), Chethana Book House, Mysore.2000.
4. Ranganath: Principales of Physical Geography (Kannada Version) Vidyanidhi, Gadag. 2003

**SEMESTER-1 GE102**  
**PRACTICALS PAPER – I**  
**“ELEMENTS OF MAP WORK”**

**Credit-01**

**Max Marks : 40**

**Int Ass : 10**

**Total : 50**

**Time : 3.00 hours**

**Max Instruction hours: 48 hours**

**CONTENT**

- 1. Maps : Meaning, Classification – Atlas, Wall Maps, Topographical, Cadastral Maps, Physical and Cultural Maps. 12:00 Hours**
- 2. Scales: Meaning, Significance, types, statement – RF, conversation of scales, Graphical Scales, Linear and Diagonal Scales with illustrations. 20:00 Hours**
- 3. Enlargement and reduction of maps, Square and triangular methods. 05:00 Hours**
- 4. Latitudes, longitudes and International Dateline. Computation of Local, Standard and Greenwich time. (and Seasons). 10:00 Hours**

**Reference:**

- 1. Gopal Singh : Map Work and Practical Geography, 11<sup>ed</sup> Vikas Publishing House, New Delhi.**
- 2. Gupta K.K & Tyagi V.C : Working With Maps, Survey of India, Department of Science and Technology, Govt of India, Dehra Dun, 1992.**
- 3. Jackie Smith B.A(ed) : Dictionary of Geography, Cosmo Publications, New Delhi, 1989.**
- 4. John & Keats : Cartographic design and Production, 2<sup>nd</sup> edition, 1989, John Wiley, New York.**
- 5. R.P.Misra : Fundamentals of Cartography, Prasaranga, University of Mysore, 1969.**
- 6. Dr. Ranganath : An Introduction to Practical Geography Part-1, Vidyanidi, Gadag, 2004.**

## SEMESTER - 2 GE151

### PAPER-II, PHYSICAL GEOGRAPHY PART- II “ATMOSPHERE AND HYDROSPHERE”

Credit-02

Max Marks : 80

Int Ass : 20

Total : 100

Time : 3.00 hours

Max Instruction hours:64 hours

#### CONTENT

- 1.1 Atmosphere- Structure and composition.
- 1.2 Atmospheric temperature- Distribution, Vertical and Horizontal. 10:00Hours
- 2.1 Atmospheric Pressure – Distribution, Pressure belts.
- 2.2 Winds – Planetary, Seasonal and local and Cyclones. 20.00Hours
- 3.1 Humidity – Absolute and relative Humidity, Condensation – clouds, types
- 3.2 Precipitation- Rainfall, types 10:00Hours
- 4.1 Submarine topography – Continental shelf, Slope Deeps, Abyssal plain, Ridges.
- 4.2 Temperature and Salinity of the ocean water. 10:00Hours
- 5.1 Movements of Ocean Water- tides.
- 5.2 Currents – Atlantic, Pacific, and Indian Ocean. 14:00Hours

#### Reference:

1. Barry & Chorle : Atmosphere, Weather and Climate, New Delhi.2000.
2. Lal.D.S : Climatology, Chaitanya, Allahabad. 1985.
3. Mallappa.P : Physical Geography, (Kannada Version), Chethana Book House, Mysore.2000.
4. Ranganath : Principales of Physical Geography (Kannada Version) Vidyanidhi, Gadag. 2003.
5. Odom E.P : Fundamentals of Ecology, WB Saunders Co, London, 1971.
6. Shanna P.D : Ecology and Environment, Rastogi Publicatioins, New Delhi, 1999.

## SEMESTER-II GE152

### PRACTICALS PAPER – II

# “REPRESENTATION OF RELIEF FEATURES AND METEOROLOGICAL INSTRUMENTS”

Credit-01

Max Marks : 40

Int Ass : 10

Total : 50

Time : 3.00 hours

Max Instruction hours: 48 hours

### CONTENT

1.1 Methods of Representing relief features – Hachure, Bench Mark, Form line, Spot height, Contour, Tint method (Color). **12:00 Hours**

2.1 Drawing of Cotour Diagrams to represent the following features.  
Slopes – Uniform, Undulating, Concave & Convex, Conical hill, Plateau, Ridges, Mountain pass, **V Shape vally, Rapids and water fall, Cliff, U Shaped vally**  
**20:00 Hours**

1. Meteorological Instruments: Thermometers

- a) Maximum and Minimum
- b) Wet and Dry Bulb Thermometer
- c) **Barometer –**
- d) Windvane, Animometer
- e) Rainguage – Conventional and Dial type

**16:00Hours**

### Reference:

1. Gopal Singh : Map Work and Practical Geography, Illcd Vikas Publishing House, New Delhi.
2. Gupta K.K & Tyagi V.C : Working With Maps, Survey of India, Department of Science and Technology, Govt of India, Dehra Dun, 1992.
3. Jackie Smith B.A(ed) : Dictionary of Geography, Cosmo Publications, New Delhi, 1989.
4. John & keats : Cartographic design and Production, 2<sup>nd</sup> edition, 1989, John willy, New York.
5. R.P.Misra : Fundamentals of Cartography, Prasaranga, University of Mysore, 1969.
6. Dr. Ranganath : An Introduction to Practical Geography Part-1, Vidyanidi, Gadag, 2004.
7. Singh.R.L : Elements of Practical Geography, Kalyani Publishers, New Delhi, 1979.

## SEMESTER - III GE201

### PAPER-III, “REGIONAL GEOGRAPHY OF THE WORLD”

Credit-02

Max Marks : 80

Int Ass : 20

Total : 100

Time : 3.00 hours

Max Instruction hours:64 hours

#### CONTENT

- 1.1 Concept of Region.
- 2.1 Physical features of the world – Major Mountains, Plateaux and Plains Types and Distributions. 12.00Hours
- 3.1 Major Climatic Regions of the World.
- 3.2 Major River System of the World. 16.00Hours
- 4.1 Agriculture : influencing factors, Types, Shifting, Intensive, Extensive, Plantation and Mixed forming.
- 4.2 Power Resources – Coal, Petroleum, Electricity-Hydel. 12.00Hours
- 5.1 Industrial Regions of the world – factors of industrial concentrations, Major regions - North East – U.S.A.  
Industrial regions of Japan.  
Industrial regions of Japan. 12.00Hours
- 5.2 Population – Growth, Distribution and Demographic Cycle.

#### Reference:

1. Hentzetmen and High Smith : World Regional Geography, Prentic Hall, New Delhi, 1965.
2. Husain.M : World Regional Geography, Rawat, Jaipur, 2004.
3. Tikka, Batia, Sekhon : World Regional Geography, New Acedemic Publishing Company, Jalandhar, 2002.

## SEMESTER-III GE201

### PRACTICALS PAPER – III “ MAP PROJECTION PART – I ”

**Credit-01**

**Max Marks : 40**

**Int Ass : 10**

**Total : 50**

**Time : 3.00 hours**

**Max Instruction hours: 48 hours**

#### **CONTENT**

- 1. Definition, Classification and Importance. 10.00 Hours**
- 2. Cylindrical Projections.**
  - a) Simple Cylindrical**
  - b) Cylindrical Equal Area. 18.00 Hours**
- 3. Conical Projections :**
  - a) Simple Conical Projection.**
  - b) Conical Projection with Two Standard Parallels.**
  - c) Bonne’s Projection.**
  - d) Poly Conic Projection. 20.00 Hours**

#### **Reference:**

- 1. M. Salar Masood : Map Projections.**
- 2. Dr, Ranganath & Mallappa : Map Projections (Kannada Version), Chethana Book House, 1986.**
- 3. Raisz E : General Cartography, 1948.**
- 4. Singh.R.L : Elements of Practical Geography, Kalyani Publishers, New Delhi, 1979.**

**SEMESTER - IV GE251**  
**PAPER-I**  
**“ HUMAN GEOGRAPHY ”**

**Credit-02**

**Max Marks : 80**

**Int Ass : 20**

**Total : 100**

**Time : 3.00 hours**

**Max Instruction hours : 64 hours**

**CONTENT**

<b>1.1 Definition, Field and Information.</b>	
<b>1.2 Relationship of Human Geography with History, Economics and Anthropology.</b>	<b>10.00 Hour</b>
<b>2.1 Concepts of Environmental Determinism and Possibilism.</b>	
<b>2.2 Cultural Factors – Race and Religion.</b>	<b>10.00 Hour</b>
<b>3.1 Human Migrations – Causes, Types, Consequences.</b>	<b>08.00 Hour</b>
<b>4.1 Settlements – Types, Rural and Urban Settlements Location and types.</b>	<b>10.00 Hour</b>
<b>5.1 Concept of State and Union, Frontiers boundaries and Buffer Zones,</b>	
<b>5.2 Geo – Strategic Theories : Heartland and Rim land Theories</b>	<b>24.00 Hour</b>

**References :**

- 1. Dickens and Pitts : Introduction to Human Geography, 1963.**
- 2. Harm D. Blij : Human and Economic Geography, Mace Millan, New York, 1992.**
- 3. Husain.M : Human and Economic Geography, Rawat, Jaipur, 2003.**
- 4. Dr. Ranganat : Principals of Human Geography ( Kannada Version ), Vidyanidi, Gadag.**



**SEMESTER-IV GE251**  
**PRACTICALS PAPER – IV**  
**“ MAP PROJECTION PART – II ”**

**Credit-01**

**Max Marks : 40**

**Int Ass : 10**

**Total : 50**

**Time : 3.00 hours**

**Max Instruction hours: 48 hours**

**CONTENT**

- 1. Zenithal Projections – Equi-distance, Equal-area, Gnomonic Stereographic Orthographic. 20:00Hours**
- 2. Conventional projections – Sinu Soidal projection, Mollweids projections. 16:00 Hours**
- 3. Choice of Projections. 04:00 Hours**
- 4. Surveying : Chain Survey, Plane Table Survey, Prismatic Compass – Meaning, Types, Advantages, Disadvantages, Exercises. 06:00 Hours**

**Reference:**

- 1. M. Salar Masood : Map Projections.**
- 2. Dr, Ranganath & Mallappa : Map Projections (Kannada Version), Chethana Book House, 1986.**
- 3. Raisz E : General Cartography, 1948.**
- 4. Singh.R.L : Elements of Practical Geography, Kalyani Publishers, New Delhi, 1979.**

## SEMESTER - V GE301

### PAPER-V

#### “ GEOGRAPHY OF INDIA PART – I (Compulsory Paper) ”

Credit-02

Max Marks : 80

Int Ass : 20

Total : 100

Time : 3.00 hours

Max Instruction hours: 64 hours

#### CONTENT

1.1 Location, Size, Extent

1.2 Physiographic Divisions

- a) Northern Mountains
- b) **Plans of Northern India**
- c) Peninsular Plateau
- d) **Costal line and Islands**

2.1 Climate : Seasons, Mechanism of Monsoon

2.2 Rivers of India : The Himalayan and Peninsular.

3.1 Soils : Characteristics – Types, Distribution, Soil Erosion and Conservation.

3.2 Forest Resources – Types, Distribution, Conservation and Social Forestry.

4.1 Irrigation – Development, Types and Distribution.

4.2 Multipurpose River Valley Projects:

- A. Bhakra – Nangal
- B. Alamatti

5.1 Agriculture – Types, Characteristics, Green Revolution

5.2 Major Agricultural Regions.

Note : Education tour for the places of Geographical interest is compulsory.

Students has to submit a report on report on tour in lieu test for internal assessment.

Reference:

## SEMESTER - V GE302

### PAPER-VI (Choice Paper – I) “ GEOGRAPHY OF KARNATAKA ”

Credit-02

Max Marks : 80

Int Ass : 20

Total : 100

Time : 3.00 hours

Max Instruction hours: 48 hours

#### CONTENT

1.1 Physical Setting – Location, Size and Extent, Relief features, Climate and Soil.

1.2 Rivers – Water Resources Potential and Utilization 08:00 Hours

2.1 Irrigation – Types

2.2 Forest Resources – Types of Forests, Afforestation measures, Social Forest and

Wildlife Sanctuaries. 08:00 Hours

3.1 Agriculture Types and Agricultural Regions, Dairying.

3.2 Mineral and Power Resources – Iron ore, Manganese, Electricity,  
Power crisis. 08:00 Hours

4.1 Industries – Growth and Development, Major industries, Sugar and Silk.

4.2 Transportation – Patterns of Road and Railways – Port and Harbors. 08:00 Hours

5.1 Human Resources – Growth and Distribution of Population.

5.2 Urbanization – Trend and Patterns. 08:00 Hours

#### References:

1. Karnataka State Gazetteer VOL-2.
2. Mallappa : Geography of Karnataka (Kannada Version)
3. Misra R.P : Geography of Mysore State.
4. NBK Reddy and Murthy G S : Regional Geography of Mysore State.
5. Nanjannavar : Geography of Karnataka.

## SEMESTER - V GE302

### PAPER-VI (Choice Paper – II ) “ POPULATION GEOGRAPHY ”

Credit-02

Max Marks : 80

Int Ass : 20

Total : 100

Time : 3.00 hours

Max Instruction hours: 48 hours

#### CONTENT

- 1.1 Nature and Scope of Population Geography. 06:00 Hours
- 2.1 Population Growth, Distribution and Density :
- a) Demographic Cycle.
  - b) Factors and Pattern of Fertility.
  - c) Factors and Pattern of Mortality. 14:00 Hours
- 3.1 Composition - Elements of Population Composition,
- a) Literacy – Growth and Distribution
  - b) Age Structure – Pyramids.
  - c) Sex Ratio – Patterns of Sex Ratio.
  - d) Life Expectancy – Patterns. 14:00 Hours
- 1.1 Problems of Population in Developed and Less Developed countries, Ethnic Racial, Linguistic and Religious Problems. 14:00 Hours

#### Reference :

1. Clarke John I : Population Geography, Pergamon Press, Oxford. 1965.
2. Threwartha G T : A Geography of Population World Pattern, John Willey, New York. 1969.
3. Robert Woods : Population Analysis in Geography, Longman, London. 1979
4. Zelinsky W : A Prologue to Population Geography, Prentic Hall NJ, 1966.
5. Hussain M : Human Geography, Rawath Publications Jaipur, 2003.
6. Nellson, Gabler & Vining : Human Geography, People, Cultures and LandScape, 1995.

**SEMESTER-V GE303**  
**PRACTICALS PAPER – V**  
**“ CARTOGRAMS AND COMPUTER MAPPING ”**

**Credit-01**

**Max Marks : 40**

**Int Ass : 10**

**Total : 50**

**Time : 3.00 hours**

**Max Instruction hours: 32 hours**

**CONTENT**

- |  |                   |
|--|-------------------|
| <b>1. Cartograms – Significance and types, Computer Applications.</b>              | <b>04:00Hours</b> |
| <b>2. Line Graphs – Polygraph, Climographs, Hythergraph, Ergograph.</b>            | <b>08:00Hours</b> |
| <b>3. Bar Graph – Combined and Compound.</b>                                       | <b>06:00Hours</b> |
| <b>4. Thematic Mapping – Choro Scematic, Choro Cromatic, Isopleth, Choropleth.</b> | <b>14:00Hours</b> |

**References:**

- 1. Gopal Singh : Map Work and Practical Geography, Illud Vikas Publishing House, New Delhi.**
- 2. R.P.Misra : Fundamentals of Cartography, Prasaranga, University of Mysore, 1969.**
- 3. Singh.R.L : Elements of Practical Geography, Kalyani Publishers, New Delhi, 1979.**
- 4. Monkhouse F J and Wilkinson H R : Map and Diagrams, mathuen and Co, Ltd, London, 1992.**
- 5. Robinson H : Elements of Cartography, John Willey, London, 1963.**
- 6. Cromby R G : Digital Cartography.**

**SEMESTER-V GE304**  
**PRACTICALS PAPER – VI**  
**“ APPLICATION OF STATISTICAL METHODS IN**  
**GEOGRAPHY ”**

**Credit-01**

**Max Marks : 40**

**Int Ass : 10**

**Total : 50**

**Time : 3.00 hours**

**Max Instruction hours: 32 hours**

**CONTENT**

- 1. Methods of Data Collection - Primary and Secondary sources, Census and Sampling Methods** **08:00 Hours**
- 2. Measures of Central Tendency – Direct and Short Cut Methods**
  - A. Arithmetic Mean.**
  - B. Mean.**
  - C. Mode ( Grouping and Formula ).** **08:00 Hours**
- 3. Measures of Dispersion : Mean, Quartile and Standard Deviations.** **08:00 Hours**
- 4. Measures of Association : Correlation** **08:00 Hours**

**Reference :**

- 1. Gopal Singh : Map Work and Practical Geography, IIIed Vikas Publishing House, New Delhi.**
- 2. R.P.Misra : Fundamentals of Cartography, Prasaranga, University of Mysore, 1969.**
- 3. Singh.R.L : Elements of Practical Geography, Kalyani Publishers, New Delhi, 1979.**
- 4. Zamir Alvi : Statistical Geography, Method and Applications, Rawath Publications, Jaipur, 1995.**

## SEMESTER - VI GE351

### PAPER-VII

#### “ GEOGRAPHY OF INDIA PART – II (Compulsory Paper) ”

Credit-02

Max Marks : 80

Int Ass : 20

Total : 100

Time : 3.00 hours

Max Instruction hours: 48 hours

#### CONTENT

- |   |            |
|---|------------|
| 1.1 Human Resources : Growth, Distribution and Density.   |            |
| 1.2 Composition : Literacy, Sex ratio, Age Structure.   | 10:00Hours |
| 2.1 Mineral Resources : Distribution, Production and Trade of Iron Ore, Bauxite.  |            |
| 2.2 Power Resources : Distribution, Production and Trade of Coal Petroleum,<br>Electricity : Thermal, Hydel and Atomic. | 08:00Hours |
| 3.1 Industries : Location, Distribution, Production and Trade of Iron Steel, Cotton<br>Textiles, Cement.                |            |
| 3.2 Industrial Regions.   | 10:00Hours |
| 4.1 Transportation : Detailed Study of Road Networks, NHDP.   |            |
| 4.2 Railway, Airways.   | 06:00Hours |
| 5.1 Tourism : Influencing Factors of Development, Types, Major Tourist<br>Centers.                                      | 04:00Hours |

#### References :

1. Gopal Sing : A Geography of India, Atmarama and Sons, New Delhi.
2. ICAR : Cropping Pattern in India, 1974.
3. Mathur S.M : Physical Geography of India, NBT, 1991.
4. Dr.Ranganath : Regional and Economic Geography of India, Vidyanidhi, Gadag, 2002.
5. Ranjith Thirtha : Geography of India,Rajat, Jaipur,1996.
6. Khullar D.R : India Comprehensive Geography, Kalyani Publishers Ltd, 2000.
7. Tiwari R.C : Geography of India, Prayaga Pustak Bhawan, Allahabad 2 ed, 2003.

## SEMESTER - VI GE351

### PAPER-VII

#### “ ECONOMIC GEOGRAPHY OF THE WORLD ( Choice Paper-I ) ”

Credit-02

Max Marks : 80

Int Ass : 20

Total : 100

Time : 3.00 hours

Max Instruction hours: 48 hours

### CONTENT

- 1.1 Definition, Field, Importance and approaches, of Economic Geography.
- 1.2 Resources - Concept, Characteristics, Type. 12:00 Hours
- 2.1 Agriculture – Major Crops – Rice, Wheat, Cotton, Sugarcane – Coffee and Tea.
- 2.2 Animal Husbandry – Sheep and Cattle rearing, Dairy Farming Region. 12:00 Hours
- 3.1 Fishing – influencing Factors, Major Fishing areas – Aquaculture.
- 3.2 Mineral Resources : Iron ore, Manganese, Bauxite. 10:00 Hours
- 4.1 Power Resources : Coal, Petroleum, Electricity: Thermal, Hydel,  
Atomic. 08:00 Hours
- 4.1 Transportation : Modes of transport  
Transcontinental roads and Railways – Major Ocean Routs – Shipping Canals of  
the world. 06:00 Hours

### References:

1. Alexander and Hartshorn : Economic Geography, Prentice-Hall, IIIed. 2000.
2. Guha and Chattarji : A New Approach to Economic Geography.
3. Khanna and Gupta : World Resources and Trade. S Chand and Company, New Delhi.
4. Mallappa : Economic Geography ( Kannada Version) Chetana Book House, Mysore. 2001.
5. Dr. Ranganath : A geography of Industrial Resources, Vidyanidi Prakashana, Gadag, 2001.



## SEMESTER-VI GE353

### PRACTICALS PAPER – VII

# “ INTERPRETATION OF INDIAN TOPOGRAPHICAL MAPS AND INDIAN DAILY WEATHER REPORTS ”

**Credit-01**

**Max Marks : 40**

**Int Ass : 10**

**Total : 50**

**Time : 3.00 hours**

**Max Instruction hours: 32 hours**

### CONTENT

**1.1 Importance of Topographical Maps – Types of Topographical Maps based on Scale.**

**1.2 Conventional Signs and Marginal Information of Toposheets.**

**2.1 Interpretation of Toposheets pertaining to**

**a) Plateau.**

**b) Mountain or Plain.**

**20:00Hours**

**The Toposheets are required to be interpreted under the following heads**

**i. Physical Landscape : a. Relief Features**

**b. Drainage System**

**c. Natural Vegetation and Land use**

**ii. Cultural Landscape : Settlement and Transportation Network.**

**2.2 Interpretation of Indian daily weather reports.**

**2.3 Conventional Signs.**

**2.4 Interpretation of Indian Weather Reports related to**

**i. Monsoon Season**

**ii. Summer**

**iii. Winter**

**12:00Hours**

### **Reference :**

- 1. Gopal Singh : Map Work and Practical Geography, Illud Vikas Publishing House, New Delhi.**
- 2. Sing R.L : Elements of Practical Geography, Kalyani Publishers, New Delhi, 1971.**
- 3. Gupta K.K and Tyagi V.C : Working with Maps, Survey of India, Department of Science and Technology, Govt of India, Dehra Dun, 1992.**
- 4. John and Keats : Cartographic Design and Production, IInd edition, John Wiley, New York, 1989.**

**SEMESTER-VI GE354**  
**PRACTICALS PAPER – VIII**  
**“ FUNDAMENTALS OF GIS AND REMOTE SENSING ”**

**Credit-01**

**Max Marks : 40**

**Int Ass : 10**

**Total : 50**

**Time : 3.00 hours**

**Max Instruction hours: 32 hours**

**CONTENT**

**1.1 GIS - Meaning, Components of GIS, Spatial Data Entities – Point, Line, Polygon, Sources of Spatial Data – Census, Topographical Maps, Areal Maps, Satellite Imageries.**

**1.2 Spatial Data Structure and Management**

- a) **Vector Data Structure**
- b) **Raster Data Structure**
- c) **Creating Database**
- d) **Linking Spatial and Non Spatial Data.**

**2.1 Creating Maps with MapInfo Software.**

- a) **Raster to Vector Conversion, Creating Databases.**
- b) **Layers – Creating thematic maps – Maps furnitures.**

**3.1 Fundamentals of Areal Photographs and Remote Sensing.**

**Reference:**

- 1. Burrough P A : Principles of GIS, OUP 1998.**
- 2. Maguire D J : Computer in Geography, Longman, London, 1998.**
- 3. Star J.C and J E : An Introduction to Geographical Information Systems**